

# Inventory & Analysis Of existing qualifications For inclusion in the NQF

## Republic of Serbia

### Annexes

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*January 2017*

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## **Annex 1 – Institutions and NQF Stakeholders contacted for the needs of the study**

- Ministry of Education, Science and Technological Development: Special Advisor to the Minister and President of NQF WG – Mirjana Bojanic.
- Ministry of Education, Science and Technological Development: Sector for HE and development, Group for qualifications – Dragana Prelevic, Advisor.
- Institute for Improvement of Education, Centre for Vocational and Adult Education – Dragan Simic, Advisor- Coordinator for development of qualification.
- Institute for Improvement of Education, Centre for Vocational and Adult Education – Jelena Jakovljevic, Advisor- Coordinator for development of qualification.
- National Employment Service, NES Belgrade – Djordje Lazic, Occupations analyst.
- National Employment Service, NES Belgrade – Ljiljana Lutovac, Organizer of adult education.
- Accreditation and Quality Evaluation Commission – Dragutin Debeljkovic, Professor at Mechanical Engineering Faculty in Belgrade
- National Statistical Office – Suncica Stefanovic Sestic, Head of Education Statistics, Science, culture and other social sectors

## Annex 2 – Sources of Information Consulted

Sources consulted for Inventory and Analyses:

- National Qualification Framework in Serbia, National Qualification System, levels I to V, Belgrade, October 2013
- Law on Foundation of Education, Official Gazette of RS, no. 72/2009, 52/2011, 55/2013
- Law on Higher Education, Official Gazette of RS, no.76/2005, 100 /2007, 97/2008, 44/ 2010, 93/2012, 89/2013, 99/2014, 45/2015, 68/2015
- AQEC, Guide through accredited study programmes in high education in the RS, 3 April 2015
- Rule book on standards and procedures for accreditation of higher education institutions and study programs, Official Gazette of RS, no.106/2006, 112/2008
- Law on Adult Education, Official Gazette of RS no. 55/2013
- Regulations on the conditions for the programme, staff, space, equipment and teaching aids for acquiring the status of a public recognized organizers of the adult education activities, Official Gazette of RS, no.89/2015,
- Regulations on the type, name and content of forms and methods of record keeping and the title, content and appearance of the forms of public documents and certificates in adult education, Official Gazette of RS, no.89/2015.
- Rule book on assessment of students in secondary education, Official Gazette of RS, no.82/2015
- Government Decision on the establishment of the Institute, Official Gazette of the Republic of Serbia number 73/04, June 2004
- Referencing National Qualifications Levels to the EQF Update 2013, European Qualifications Framework, Series: Note 5
- “Criteria and procedures for referencing national qualifications levels to the EQF”, at: [http://ec.europa.eu/ploteus/sites/eac-eqf/files/criteria\\_en.pdf](http://ec.europa.eu/ploteus/sites/eac-eqf/files/criteria_en.pdf)
- ECVET - European Credit system for Vocational Education and Training: <http://www.cedefop.europa.eu/en/events-and-projects/projects/ecvet-european-credit-system-vocational-education-and-training>
- Ministry of Education, Science and Technological Development: <http://www.mpn.gov.rs/>
- Commission for Accreditation and Quality Assurance: <http://www.kapk.org/>
- Institute for Improvement of Education: [www.zuov.gov.rs/](http://www.zuov.gov.rs/)
- National Council for HE: <http://nsvo.gov.rs/>
- Regulations on the list of professional, academic and scientific titles, Official Gazette RS, no. 30/2007, 112/2008, 72/2009, 81/2010, 39/2011, 54/2011, 44/2013, 100/2015
- National Employment Service: <http://www.nsz.gov.rs/>
- National Statistical Office: [www.stat.gov.rs](http://www.stat.gov.rs)
- AGRICULTURAL TECHNICIAN - Teaching plan and programme, Education Gazette - 1/93, 5/11, 05/02, 6/12
- AGRICULTURAL MACHINERY MECHANIC - Teaching plan and programme, Educational Gazette - 1/96, 5/11, 05/02, 6/12, 2/13
- ELECTRO TECHNICIAN FOR ELECTRONICS IN VEHICLES - Teaching plan and programme, Education Gazette - 4/04, 13/04, 12/05, 8/06, 3/07, 2/13
- CAR ELETRICIAN - Teaching plan and programme, Educational Gazette - 4/93, 5/11, 3/01, 8/02, 3/03, 2/07, 7/12, 2/13, 11/13
- MECHATRONICS TECHNICIAN - Teaching plan and programme, Education Gazette – 9/07, 6/10,5/11
- MECHANICAL PROCESSING OPERATOR - Teaching plan and programme, Official Gazette RS -Educational Gazette – 4/04, 17/04, 8/06

- FINANCIAL ADMINISTRATOR - Teaching plan and programme, Official Gazette RS - Education Gazette - 14/04, 11/05, 18/07, 1/08, 1/13
- ARCHITECTURAL TECHNICIAN - Teaching plan and programme, Official Gazette RS - Education Gazette - 13/07, 10/08, 3/10, 5/11, 2/12, 13/15, 18/15
- DRY CONSTRUCTION FITTER - Teaching plan and programme, Official Gazette RS - Educational Gazette - 4/04, 12/04, 11/05, 8/06, 3/07, 5/11, 7/12, 03/14, 08/14
- TECHNICIAN FOR FURNITURE AND INTERIOR DESIGN - Teaching plan and programme, Official Gazette RS - Education Gazette - 8/05, 15/06, 1/08, 08/09, 09/14
- CARPENTER - Teaching plan and programme, Official Gazette RS - Educational Gazette - 8/05, 15/06, 1/08, 08/09, 09/14
- SPECIALIST IN AGRICULTURAL MECHANIZATION - Teaching plan and programme, Official Gazette RS - Education Gazette – 17/97
- WINE GROWER – SPECIALIST - Teaching plan and programme, Official Gazette RS - Education Gazette – 17/97
- AGRICULTURAL ENGINEER (BAS) – Documentation for the accreditation of study programme, University of Kragujevac, Faculty of Agronomy in Cacak, <http://www.afc.kg.ac.rs>
- BACHELOR WITH HONOURS AGRICULTURAL ENGINEER (BAS Integrated) - Documentation for the accreditation of study programme, BELGRADE UNIVERSITY, FACULTY OF AGRICULTURE, [www.agrif.bg.ac.rs](http://www.agrif.bg.ac.rs)
- MASTER ENGINEER OF AGRICULTURE - Documentation for the accreditation of study programme, BELGRADE UNIVERSITY, FACULTY OF AGRICULTURE, [www.agrif.bg.ac.rs](http://www.agrif.bg.ac.rs)
- SPECIALIST AGRICULTURAL ENGINEER - Documentation for accreditation of study programmes: Specialist academic studies: Zoo-technique, BELGRADE UNIVERSITY, FACULTY OF AGRICULTURE, [www.agrif.bg.ac.rs](http://www.agrif.bg.ac.rs)
- DOCTOR OF SCIENCE - BIOTECHNICAL SCIENCES - Documentation for accreditation of the study programme, agriculture, doctoral studies, BELGRADE UNIVERSITY, FACULTY OF AGRICULTURE, [www.agrif.bg.ac.rs](http://www.agrif.bg.ac.rs)
- PROFESSIONAL AGRICULTURAL ENGINEER (BPS) - Documentation for accreditation of study programme, Basic professional studies, FARMING AND VEGETABLE CULTURE, Higher Agricultural School of Professional Studies Sabac, [www.vpssa.edu.rs](http://www.vpssa.edu.rs)
- SPECIALIST PROFESSIONAL AGRICULTURAL ENGINEER - Documentation for accreditation of study programme, Professional specialisation studies, Higher Agricultural School of Professional Studies Sabac, [www.vpssa.edu.rs](http://www.vpssa.edu.rs)
- ORGANIC PRODUCTION, DRYING AND STORAGE OF MEDICINAL PLANTS - Training programme, Education Gazette – 02/09
- THE CULTIVATION OF VEGETABLES IN ENCLOSED SPACE – NES internal documents
- ELECTRICAL HOME APPLIANCES MAINTENANCE – NES internal documents
- MAINTENANCE OF CAR AIR-CONDITION DEVICES - Training programme, Education Gazette – 02/09
- BUSINESS SECRETARY – NES internal documents
- DRY LINING SYSTEM INSTALLER – NES internal documents
- FABRICATION AND INSTALLATION OF PARTICLEBOARD FURNITURE - Training programme, Education Gazette – 02/09

## Annex 3 – Sample of VET, HE and Non-Formal Qualifications used for Qualifications Analyses

### LIST OF QUALIFICATION THAT WERE SELECTED FOR ANALYSES

Economic Sector	Secondary VET – Level 3 and 4
Agriculture, food production and food processing sector	AGRICULTURAL TECHNICIAN- 4 years (Пољопривредни техничар)
	AGRICULTURAL MACHINERY MECHANIC- 3 years (Руковалац– механичар пољопривредне технике)
Electrical engineering	ELECTRO TECHNICIAN FOR ELECTRONICS IN VEHICLES – 4 years (Електротехничар за електронику на возилима)
	CAR ELETRICIAN – 3 years (Аутоелектричар)
ICT	ADMINISTRATOR OF COMPUTER NETWORKS – 4 years (Администратор рачунарских мрежа)
Machine engineering and metal processing	MECHATRONICS TECHNICIAN - 4 years (Техничар мехатронике)
	MECHANICAL PROCESSING OPERATOR – PILOT – 3 years (Оператер машинске обраде)
Economy, law and administration	FINANCIAL ADMINISTRATOR – 4 years (Финансијски администратор).
Geodesy and construction	ARCHITECTURAL TECHNICIAN - PILOT – 4 years (Архитектонски техничар – оглед)
	DRY CONSTRUCTION FITTER - PILOT – 3 years (Монтер суве градње)
Forestry and wood processing	TECHNICIAN FOR FURNITURE AND INTERIOR DESIGN – 4 years (Техничар за обликовање намештаја и ентеријера)
	CARPENTER – 3 years (Столар)
Economic Sector	Post-secondary VET – Level 5
Agriculture, food production and food processing sector	SPECIALIST IN AGRICULTURAL MECHANIZATION (Пољопривредни механизатор – специјалиста)
	WINE GROWER – SPECIALIST (Виноградар – специјалиста)

Economic Sector	HE – Level 6, 7 and 8
Agriculture, food production and food processing sector	AGRICULTURAL ENGINEER (BAS) (Инжењер пољопривреде)
	BACHELOR WITH HONOURS AGRICULTURAL ENGINEER (BAS Integrated) (Дипломирани инжењер пољопривреде )
	MASTER ENGINEER OF AGRICULTURE (Master) (Мастер инжењер пољопривреде )
	SPECIALIST AGRICULTURAL ENGINEER (Master + Specialisation) ) (Специјалиста инжењер пољопривреде)
	DOCTOR OF SCIENCE - BIOTECHNICAL SCIENCES (PHD) (Доктор наука - биотехничке науке)
	PROFESSIONAL AGRICULTURAL ENGINEER (BPS) (Струковни инжењер пољопривреде)
	SPECIALIST PROFESSIONAL AGRICULTURAL ENGINEER (BPS+Specialisation) ( Специјалиста струковни инжењер пољопривреде)

Economic Sector	Non – formal qualifications
Agriculture, food production and food processing sector	ORGANIC PRODUCTION, DRYING AND STORAGE OF MEDICINAL PLANTS (Органска производња, сушење и складиштење лековитог биља (невена и аниса) CARDS
	THE CULTIVATION OF VEGETABLES IN ENCLOSED SPACE (Узгој поврћа у затвореном простору) NES
Electrical engineering	ELECTRICAL HOME APPLIANCES MAINTENANCE (Сервисер кућних електричних уређаја) NES
Machine engineering and metal processing	MAINTENANCE OF CAR AIR-CONDITION DEVICES (Одржавање аутоклима уређаја) CARDS
Economy, law and administration	BUSINESS SECRETARY (Пословни секретар) NES
Geodesy and construction	DRY LINING SYSTEM INSTALLER (Монтажер системом суве градње) NES
Forestry and wood processing	FABRICATION AND INSTALLATION OF PARTICLEBOARD FURNITURE(Израда и монтажа намештаја од плочастих материјала) CARDS

## Annex 4 - Qualification Content Analyses on the Sample qualifications

<b>Title of qualification:</b> AGRICULTURAL TECHNICIAN <b>Qualification code:</b> N/A <b>Indicated NQF level:</b> 4			<b>Document used for this comparison</b> <b>Type:</b> Teaching plan and programme, Education Gazette - 1/93, 5/11, 05/02, 6/12 <b>Date of development:</b> 1993/2012 <b>Institution – Developer:</b> IIE		
<b>This qualification is based on learning outcomes:</b> Yes					
<b>Assessment of the relation between expression of learning outcomes for this qualification and NQF level descriptors:</b> LO are defined in the Teaching plan and programme. LO are defined on the level of qualification, but also within TPP there are defined for subjects/ modules. LO are formulated in the form of Knowledge, Skills and Abilities and attitudes. LO are linked to the Professional Competencies (work description). Following work competencies are defined for this qualification: <ul style="list-style-type: none"><li>Organize the crop production and the livestock breeding in combines and agricultural economies.</li><li>Carry out the process of crop production in combines and agricultural economies.</li><li>Carry out the process of livestock breeding in combines and agricultural economies.</li><li>Keep records of crop and livestock production.</li><li>Take care of health and the environment in the process of crop and livestock production.</li></ul> LO are in line with descriptors for the NQF level 4.			<b>Assessment of gap between expression of learning outcomes for this qualification and NQF level descriptors:</b> No significant gaps were identified. Some of the AA (Organize groups of workers; Control the work process) are listed under Skills. AA – “Identifies problems and participate in their resolution” are not expressed as such in LO. AA – “Performs work activities independently” is not expressed per se but it is implied and it can be deduced from the formulation in Serbian language.		
Level 4 descriptors NQF versus Identified Learning Outcomes					
NQF level 4 descriptor	Related LO Descriptors:	NQF level 4 descriptor	Related LO Descriptors:	NQF level 4 descriptor	Related LO Descriptors:
Knowledge and understanding		Skills		Abilities and attitudes (AA)	



<p>Possesses <u>systematized theoretical or comprehensive vocational knowledge</u> necessary for performing work and/or for further learning.</p>	<ul style="list-style-type: none"> <li>• Explain the basic principles of the work organization in crop and livestock production;</li> <li>• Explain the principles and technologies of crop production;</li> <li>• Explain the principles and technologies of livestock breeding;</li> <li>• Specify the standards and norms in the area of crop and livestock production and explain their importance (HACCP, GLOBAL GAP);</li> <li>• Describe the characteristics and types of materials, tools and the equipment in plant and livestock production;</li> <li>• Explain the functioning of the basic machine and tool circuits;</li> <li>• Explain the importance of periodicity and the complexity of the maintenance of machines, devices and equipment in plant and livestock production.</li> </ul> <p>❖</p> <ul style="list-style-type: none"> <li>• Explain the technology of growing plants and crops outdoors and in enclosed spaces;</li> <li>• Explain the general requirements of growing plants and crops;</li> <li>• Specify the categories of agro-technical methods and explain the ways in which the implementation of agro-technical measures is</li> </ul>	<p><u>Applies skills needed for performing complex, diverse, frequently non-standard work</u> by using different methods and techniques.</p> <p>Performs <u>critical selection of relevant information</u> gathered from various sources and applies it in work or study.</p> <p><u>Handles different equipment</u>, machines and plants by using different material.</p>	<ul style="list-style-type: none"> <li>• Develop the operational production plan based on a work order;</li> <li>• Plan the material consumption, the required number of workers and the production resources;</li> <li>• Prepare tools, materials and protective work resources;</li> <li>• Maintain work resources;</li> <li>• Set and prepare the machines, devices and work equipment;</li> <li>• <u>Organize groups of workers</u>;</li> <li>• <u>Control the work process</u> and record the results;</li> <li>• Communicate with associates, superiors and clients during the work process.</li> </ul> <p>❖</p> <ul style="list-style-type: none"> <li>• Carry out the procurement of materials and resources for crop production;</li> <li>• <u>Control</u> the raw materials for crop production;</li> <li>• Take samples of soil and plant material;</li> <li>• Conduct agro-technical procedures according to the work order;</li> <li>• Produce seed and planting material outdoors and in enclosed spaces;</li> <li>• Prepare the land;</li> <li>• Perform sowing and planting;</li> <li>• Monitor the development of crops;</li> <li>• Recognize the disease symptoms in cultivated crops,</li> </ul>	<p>Performs work <u>independently</u> with occasional consultations.</p> <p><u>Organizes and controls</u> own work and/or the work of small teams.</p> <p><u>Identifies problems</u> and participate in their resolution.</p> <p>Assumes <u>responsibility</u> for selecting procedures and means as well as for own work and/or the work of others.</p>	<ul style="list-style-type: none"> <li>• Perform conferred tasks knowingly, <u>responsibly</u> and in a neat manner;</li> <li>• <u>Organize their time</u> efficiently;</li> <li>• Express a positive attitude towards the significance of functional and technical soundness of the machinery and tools in agricultural production and livestock breeding;</li> <li>• Manifest kindness, communication skills, initiative, unobtrusiveness and flexibility in relation with clients and colleagues.</li> <li>• Exhibit a positive attitude towards the professional and ethical standards and values.</li> </ul>
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	<p>conducted;</p> <ul style="list-style-type: none"> <li>• Differ varieties of different crops and vegetables and explain their characteristics;</li> <li>• Differ types and varieties of cultivated cultures in organic plant and crop production and explain their characteristics;</li> <li>• Differ diseases of cultivated plants and crops and the types of insects and weeds;</li> <li>• Specify the types and explain the method of applying plant protection agents;</li> <li>• Explain the technological processes in crop and vegetable production;</li> <li>• Specify the exploitation characteristics and explain the operating mode of machines and tools in crop production;</li> <li>• Specify the quality parameters of raw materials and plant products;</li> <li>• Explain the conditions of transportation and storage of raw materials and plant products.</li> </ul> <p>❖</p> <ul style="list-style-type: none"> <li>• Differ species, breeds and categories of domestic animals;</li> <li>• Explain the morphology and anatomy of domestic animals;</li> <li>• Explain the general requirements of livestock breeding;</li> <li>• Explain the technological processes in livestock breeding;</li> </ul>		<p>as well as types of pests and weeds;</p> <ul style="list-style-type: none"> <li>• Implement the crop protection measures;</li> <li>• Perform harvesting and picking;</li> <li>• Control finished products;</li> <li>• Store plant products;</li> <li>• Operate the agricultural machinery at all stages of plant production.</li> </ul> <p>❖</p> <ul style="list-style-type: none"> <li>• Carry out the procurement of materials and resources for livestock breeding;</li> <li>• Control the raw materials for livestock breeding;</li> <li>• Perform the <u>selection</u> and marking of animals for breeding;</li> <li>• Assess and classify domestic animals;</li> <li>• Conduct the prescribed nutrition and the livestock and poultry breeding;</li> <li>• Maintain the hygiene of domestic animals;</li> <li>• Take samples of animal feed, livestock and poultry products.</li> <li>• Implement the zoo-technical measures according to the work order;</li> <li>• Recognize a disease symptoms in domestic animals;</li> <li>• Storage the livestock and poultry products:</li> <li>• <u>Operate the machinery</u>, equipment and appliances in livestock production.</li> </ul>		
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	<ul style="list-style-type: none"> <li>• Specify the exploitation characteristics and explain the operating mode of machines and tools in livestock breeding;</li> <li>• Explain the ways of feeding, breeding and taking care of various types and categories of animals;</li> <li>• Explain the importance of maintaining hygiene of animals and animal accommodation facilities;</li> <li>• Differ types of zoo-technical measures and explain ways of implementing zoo-technical measures;</li> <li>• Specify the quality parameters of raw materials and products in livestock production;</li> <li>• Explain the conditions of transporting and storage of raw materials, livestock and poultry products.</li> </ul> <p>❖</p> <ul style="list-style-type: none"> <li>• Explain the importance and application of keeping records on the performance of employees, machinery usage, consumption of raw material, crop productivity and the increase of volume in livestock and in livestock products;</li> <li>• Specify norms and explain economic elements of price calculation;</li> <li>• Explain the significance and indicate the types of property insurance in agricultural production;</li> </ul>		<p>❖</p> <ul style="list-style-type: none"> <li>• Keep records of the execution of the crop and livestock production plan;</li> <li>• Prepare the required documentation and reports on production;</li> <li>• Prepare the information on material and financial accounting, draft product offers and insurance contracts;</li> <li>• Prepare price calculations for the crop and livestock products;</li> <li>• <u>Use information resources.</u></li> </ul> <p>❖</p> <ul style="list-style-type: none"> <li>• Implement the safety measures when carrying out the work;</li> <li>• Use protective devices and equipment during the production process;</li> <li>• Protect the external environment from contamination by chemical agents used in crop and livestock production;</li> <li>• Dispose of packaging and toxic substances in the prescribed manner.</li> </ul>		
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	<ul style="list-style-type: none"> <li>• Explain the basic principles of entrepreneurship.</li> <li>❖</li> <li>• Explain the importance of applying the regulations from the field of Occupational Safety and Health;</li> <li>• Explain the importance of applying regulations from the field of fire prevention;</li> <li>• Explain the importance of applying regulations from the field of environmental protection.</li> </ul>				
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<b>Title of qualification:</b> AGRICULTURAL MACHINERY MECHANIC <b>Qualification code:</b> N/A <b>Indicated NQF level:</b> 3  <b>This qualification is based on learning outcomes:</b> Yes			<b>Document used for this comparison</b> <b>Type:</b> Teaching plan and programme, Educational Gazette - 1/96, 5/11, 05/02, 6/12, 2/13 <b>Date of development:</b> 1996/2013 <b>Institution – Developer:</b> IIE		
<b>Assessment of the relation between expression of learning outcomes for this qualification and NQF level descriptors:</b> LO are defined in the Teaching plan and programme. LO are defined on the level of qualification, but also within TPP there are defined for subjects/ modules. LO are formulated in the form of Knowledge, Skills and Abilities and attitudes. LO are linked to the Professional Competencies (work description). Following work competencies are defined for this qualification: <ul style="list-style-type: none"><li>• Operate tractor aggregates and devices.</li><li>• Operate combine harvesters and self-propelled machines.</li><li>• Repair, maintain and preserve agricultural machinery.</li><li>• Keep records of exploitation, repairs and maintenance of agricultural machines and perform commercial operations.</li><li>• Take care of their health and the environment when handling and maintaining agricultural machinery.</li></ul> LO are in line with descriptors for the NQF level 3.			<b>Assessment of gap between expression of learning outcomes for this qualification and NQF level descriptors:</b> No significant gaps were identified. AA -“Entrepreneurial spirit in work” is not expressed as such in LO. AA – “Performs work activities independently” is not expressed per se but it is implied and it can be deduced from the formulation in Serbian language.		
Level 3 descriptors NQF versus Identified Learning Outcomes					
NQF level 3 descriptor	Related LO Descriptors:	NQF level 3 descriptor	Related LO Descriptors:	NQF level 3 descriptor	Related LO Descriptors:
Knowledge and understanding		Skills		Abilities and attitudes (AA)	

<p>Possesses general and vocational knowledge of facts, <u>basic principles and processes</u> necessary for performing work and/or for further learning.</p>	<ul style="list-style-type: none"> <li>• Explain aggregation, types of aggregates, the rules for assembling aggregates, aggregate productivity;</li> <li>• Explain the phases of the agricultural production technologies;</li> <li>• Explain the rules of the work organization in agriculture;</li> <li>• Differentiate between agro-technical requirements of machines;</li> <li>• Name and explain the rules and principles of adjusting agricultural machinery;</li> <li>• Apply the rules of operating agricultural machinery;</li> <li>• Differ norms and standards for the performance of technological operations in agricultural production;</li> <li>• Act in accordance with the regulations on traffic safety;</li> <li>• Name the transportation means in agriculture;</li> <li>• Explain the proper storage of agricultural products.</li> </ul> <p>❖</p> <ul style="list-style-type: none"> <li>• Explain the technological process of a combine functioning;</li> <li>• Differ dimensions and bond gaps for adjusting mechanisms and devices of combines and self-propelled machines;</li> <li>• Explain the rules of adjusting combines and self-propelled machines;</li> <li>• Act in accordance with the regulations on traffic safety;</li> </ul>	<p>Applies skills needed for performing <u>medium complex, diverse, occasionally non-standard operative work</u>.</p> <p><u>Collects and selects</u> information.</p> <p><u>Handles specialized equipment</u>, machines and plant by using different material.</p>	<ul style="list-style-type: none"> <li>• Perform assembling of aggregates;</li> <li>• Adjust agricultural machinery to work according to agro-technical requirements;</li> <li>• Operate tractor aggregates and devices;</li> <li>• <u>Use the information technology</u> and the global positioning system (GPS);</li> <li>• Control spillage of grain during sowing;</li> <li>• Clean and wash machines, tools and devices;</li> <li>• Adjust and control the operation of irrigation devices;</li> <li>• <u>Use the information</u> assets in agricultural production.</li> </ul> <p>❖</p> <ul style="list-style-type: none"> <li>• Prepare machines for performing the technological operations;</li> <li>• Adjust combine performance to harvest by type and condition of the crop;</li> <li>• Adapt a combine to different culture;</li> <li>• Operate a combine when harvesting fruits;</li> <li>• Establish the loss of grain when harvesting by using the fast method;</li> <li>• Operate a combine in public traffic;</li> <li>• Adjust and maintain self-propelled machines;</li> <li>• Operate self-propelled machines during the work process and in road traffic;</li> <li>• Use measuring tools,</li> </ul>	<p>Performs work activities <u>independently</u>, according to determined technical and technological procedures.</p> <p><u>Organizes</u> own work and/or the work of others.</p> <p><u>Assumes responsibility</u> for applying procedures and means as well as for organizing own work.</p> <p>Demonstrates <u>entrepreneurial</u> spirit in work.</p>	<ul style="list-style-type: none"> <li>• Perform conferred tasks knowingly, <u>responsibly</u> and in a precise manner;</li> <li>• <u>Organize their time</u> efficiently;</li> <li>• Express positive attitude towards the significance of functional and technical soundness of agricultural machinery, tools, instruments, accessories and equipment;</li> <li>• Comply with the manufacturer's instructions and procedures in exploitation, repairs and maintenance of agricultural machinery;</li> <li>• Exhibit a positive attitude towards the professional and ethical standards and values;</li> <li>• Manifest kindness, communication, <u>initiative</u>, unobtrusiveness and flexibility in relation with clients and colleagues.</li> </ul>
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	<ul style="list-style-type: none"> <li>• Explain the importance of applying regulations on safety at work and fire prevention;</li> <li>• Explain the dangers of reckless handling and non-compliance with the regulation;</li> <li>• Explain the use of the global positioning system (GPS).</li> </ul> <p>❖</p> <ul style="list-style-type: none"> <li>• Name technical characteristics and explain the operation mode of agricultural machinery;</li> <li>• Explain the procedures to eliminate malfunctions in agricultural machinery and equipment;</li> <li>• Explain the principles of technical maintenance and preservation of agricultural machinery;</li> <li>• Distinguish between the tools and the equipment for repairing and use them in an adequate way.</li> </ul> <p>❖</p> <ul style="list-style-type: none"> <li>• Name <u>basic principles</u> of work organization;</li> <li>• Differ types of record keeping related to exploitation, reparation and maintenance of agricultural machinery;</li> <li>• Explain the basic entrepreneurship principles;</li> <li>• Name the elements of a service price calculation.</li> </ul> <p>❖</p> <ul style="list-style-type: none"> <li>• Explain the importance of applying the regulations from</li> </ul>		<p>accessories and instruments;</p> <ul style="list-style-type: none"> <li>• Use the information technology and the global positioning system (GPS).</li> </ul> <p>❖</p> <ul style="list-style-type: none"> <li>• Use diagnostics equipment;</li> <li>• Perform replacement of the defective and repair the damaged parts;</li> <li>• Check the function of all devices after the intervention;</li> <li>• Carry out technical maintenance of agricultural machinery according to the manufacturer's instructions;</li> <li>• Perform conservation and reconstitution of machines;</li> <li>• Maintain hygiene in the facilities for reparation and machine storage.</li> </ul> <p>❖</p> <ul style="list-style-type: none"> <li>• Keep the record on additional material, spare parts, fuel, lubricants and the effective working hours of the machines and equipment;</li> <li>• Make a report on executed activities and taken measures of technical maintenance;</li> <li>• Require spare parts of machines and devices according to the catalogue;</li> <li>• Form service prices;</li> <li>• Communicate with clients and colleagues.</li> </ul> <p>❖</p> <ul style="list-style-type: none"> <li>• Use the protective gear while working;</li> <li>• Implement rules of the personal and the workspace</li> </ul>		
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	<p>the field of safety and occupational health;</p> <ul style="list-style-type: none"> <li>• Explain the importance of applying regulations from the field of fire prevention;</li> <li>• Explain the importance of applying regulations from the field of environmental protection.</li> </ul>		<p>hygiene;</p> <ul style="list-style-type: none"> <li>• Dispose of harmful substances (used oil, packaging etc.) in the prescribed manner;</li> <li>• Provide first aid.</li> </ul>		
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<b>Title of qualification:</b> ELECTROTECHNICIAN FOR ELECTRONICS IN VEHICLES <b>Qualification code:</b> N/A <b>Indicated NQF level:</b> 4  <b>This qualification is based on learning outcomes:</b> Yes			<b>Document used for this comparison</b> <b>Type:</b> Teaching plan and programme, Education Gazette - 4/04, 13/04, 12/05, 8/06, 3/07, 2/13 <b>Date of development:</b> 2004/2013 <b>Institution – Developer:</b> IIE		
<b>Assessment of the relation between expression of learning outcomes for this qualification and NQF level descriptors:</b> LO are defined in the Teaching plan and programme. LO are defined on the level of qualification, but also within TPP there are defined for subjects/ modules. LO are formulated in the form of Knowledge, Skills and Abilities and attitudes. LO are linked to the Professional Competencies (work description). Following work competencies are defined for this qualification: <ul style="list-style-type: none"><li>• Check validity of electrical installations, devices, machines, sensors and actuator elements of vehicles.</li><li>• Diagnose electronic control systems of the engine.</li><li>• Diagnose mechanical, pneumatic and hydraulic systems in a vehicle.</li><li>• Diagnose electronic systems of stability, safety and comfort in a vehicle.</li><li>• Organize the work process of maintenance and servicing of vehicles.</li></ul> LO are in line with descriptors for the NQF level 4.			<b>Assessment of gap between expression of learning outcomes for this qualification and NQF level descriptors:</b> No significant gaps were identified. AA – “Performs work activities independently” is not expressed per se but it is implied and it can be deduced from the formulation in Serbian language.		
Level 4 descriptors NQF versus Identified Learning Outcomes					
NQF level 4 descriptor	Related LO Descriptors:	NQF level 4 descriptor	Related LO Descriptors:	NQF level 4 descriptor	Related LO Descriptors:
Knowledge and understanding		Skills		Abilities and attitudes (AA)	
Possesses <u>systematized theoretical or comprehensive vocational</u>	<ul style="list-style-type: none"><li>• Define the electrical installation elements in a vehicle;</li><li>• Indicate the prescribed protection measures when</li></ul>	<u>Applies skills needed for performing complex, diverse, frequently non-standard work</u> by	<ul style="list-style-type: none"><li>• Make the <u>selection of</u> conductors and an intersection in case of replacement or installation of additional devices / equipment;</li></ul>	Performs work <u>independently</u> with occasional consultations.	<ul style="list-style-type: none"><li>• Perform conferred tasks knowingly, <u>responsibly</u> and in a precise and neat manner;</li></ul>

<p><u>knowledge</u> necessary for performing work and/or for further learning.</p>	<p>working with conventional and high voltage chemical power sources on standard, hybrid and electric vehicles;</p> <ul style="list-style-type: none"> <li>• Name the elements of the vehicle lighting system;</li> <li>• Distinguish between elements of the system for washing and wiping windows, sound signalling devices, control instruments and digital control panels;</li> <li>• Differentiate between electrical machines in a vehicle and indicate the measures of protection against electric shocks;</li> <li>• Differentiate between sensors and actuators in electronic vehicle systems.</li> </ul> <p>❖</p> <ul style="list-style-type: none"> <li>• Explain different ignition systems of petrol (internal combustion) engines;</li> <li>• Explain different systems of indirect and direct injection of petrol engines;</li> <li>• Explain different electronic injection systems of diesel (internal combustion) engines;</li> <li>• Explain different standards on exhaust emissions in petrol engines and diesel engines.</li> </ul> <p>❖</p> <ul style="list-style-type: none"> <li>• Explain the various mechanical systems in petrol engines, diesel engines and other mechanical systems in a vehicle;</li> <li>• Explain the various</li> </ul>	<p>using different methods and techniques.</p> <p>Performs <u>critical selection of relevant information</u> gathered from various sources and applies it in work or study.</p> <p>Handles <u>different equipment</u>, machines and plants by using different material.</p>	<ul style="list-style-type: none"> <li>• <u>Assess</u> the soundness of a lead battery in the electrical installation of the vehicle and fills it from outside the vehicle;</li> <li>• Perform diagnostic measurement in electronic systems of a digital control panel;</li> <li>• Assess the soundness of electrical machines of vehicles and remove malfunctions in the vehicle installation / electrical machine;</li> <li>• Perform diagnostic measurements on sensors and actuator elements of electronic systems and remove the system malfunction.</li> </ul> <p>❖</p> <ul style="list-style-type: none"> <li>• Perform diagnostic measurements in ignition systems of petrol engines and remove system malfunctions;</li> <li>• Perform diagnostic measurements in systems of indirect and direct injection of petrol engines and remove system malfunctions;</li> <li>• Perform diagnostic measurements in different electronic injection systems of diesel engines and remove system malfunctions.</li> </ul> <p>❖</p> <ul style="list-style-type: none"> <li>• Perform diagnostic measurements of the mechanical system components and remove malfunctions;</li> </ul>	<p><u>Organizes and controls</u> own work and/or the work of small teams.</p> <p>Identifies <u>problems</u> and participate in their resolution.</p> <p>Assumes <u>responsibility</u> for selecting procedures and means as well as for own work and/or the work of others.</p>	<ul style="list-style-type: none"> <li>• <u>Organize and plan</u> their time efficiently;</li> <li>• Manifest a positive attitude towards the significance of the implementation of regulations and valid standards in electrical engineering and electronics applied on vehicles;</li> <li>• Manifest positive attitude towards the functional and technical soundness of equipment and devices used in carrying out the work;</li> <li>• Manifest kindness, communication and flexibility in relation with colleagues;</li> <li>• Express client-oriented conduct;</li> <li>• Manifest <u>initiative and resourcefulness</u> in carrying out the work;</li> <li>• Manifest analytical mind in carrying out the work;</li> <li>• <u>Solve work problems</u>;</li> </ul>
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	<p>pneumatic systems in a vehicle;          • Explain different hydraulic systems in a vehicle.</p> <p>❖</p> <p>• Differentiate between the circuits of the anti-lock braking system, the traction control system and the electronic driving dynamics control system;          • Explain different safety systems in a vehicle;          • Explain different comfort systems in a vehicle.</p> <p>❖</p> <p>• Explain the organization of an auto service / company;          • Indicate technical and service documentation of an auto service / company;          • Specify rules and guidelines on health and safety, hygiene, fire protection and environmental protection at the work place.</p>		<p>• Perform diagnostic measurements of the pneumatic system elements and remove the malfunction cause;          • Perform diagnostic measurements of the hydraulic system elements and remove the malfunction cause.</p> <p>❖</p> <p>• Perform diagnostic measurements and the correction of malfunctions in the electronic vehicle stability systems;          • Perform diagnostic measurements and the correction of malfunctions in the electronic vehicle safety systems;          • Perform diagnostic measurements and the correction of malfunctions in the electronic vehicle comfort systems.</p> <p>❖</p> <p>• Fill in the service documentation upon the reception of vehicles;          • Perform diagnostic measurements in various vehicle systems;          • Apply the basic rules and guidelines on health and safety, hygiene, fire protection and environmental protection when working on vehicles.</p>		<p>• Express a positive attitude towards the professional and ethical standards and values.</p>
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<b>Title of qualification:</b> CAR ELECTRICIAN <b>Qualification code:</b> N/A <b>Indicated NQF level:</b> 3  <b>This qualification is based on learning outcomes:</b> Yes			<b>Document used for this comparison</b> <b>Type:</b> Teaching plan and programme, Educational Gazette - 4/93, 5/11, 3/01, 8/02, 3/03, 2/07, 7/12, 2/13, 11/13 <b>Date of development:</b> 1993/2013 <b>Institution – Developer:</b> IIE		
<b>Assessment of the relation between expression of learning outcomes for this qualification and NQF level descriptors:</b> LO are defined in the Teaching plan and programme. LO are defined on the level of qualification, but also within TPP there are defined for subjects/ modules. LO are formulated in the form of Knowledge, Skills and Abilities and attitudes. LO are linked to the Professional Competencies (work description). Following work competencies are defined for this qualification: <ul style="list-style-type: none"><li>• Set up electrical installations and network equipment on vehicles.</li><li>• Set up electrical installations and network equipment on vehicles.</li><li>• Maintain, test, repair and replace the electrical and electronic devices in vehicles.</li><li>• Modify and upgrade the electrical and electronic systems in vehicles.</li><li>• Perform the quality control of completed auto electrical proceedings in accordance with the norms and regulations.</li><li>• Plan and organize auto electrical work activities.</li><li>• Keep the documentation of auto electrical proceedings.</li></ul> LO are in line with descriptors for the NQF level 3.			<b>Assessment of gap between expression of learning outcomes for this qualification and NQF level descriptors:</b> No significant gaps were identified. AA -“Entrepreneurial spirit in work” is not expressed as such in LO. AA – “Performs work activities independently” is not expressed per se but it is implied and it can be deduced from the formulation in Serbian language.		
Level 3 descriptors NQF versus Identified Learning Outcomes					
NQF level 3 descriptor	Related LO Descriptors:	NQF level 3 descriptor	Related LO Descriptors:	NQF level 3 descriptor	Related LO Descriptors:
Knowledge and understanding		Skills		Abilities and attitudes (AA)	

<p>Possesses <u>general and vocational knowledge of facts, basic principles and processes</u> necessary for performing work and/or for further learning.</p>	<ul style="list-style-type: none"> <li>• Indicate types and elements of electrical installations and network equipment;</li> <li>• Differ types of electrical symbols;</li> <li>• Explain the method of setting up electrical installations on vehicles;</li> <li>• Distinguish different types and uses of tools and equipment for production and set up of electrical installation and network equipment;</li> <li>• Explain the procedures and rules of connecting electric and electronic devices to the installation.</li> </ul> <p>❖</p> <ul style="list-style-type: none"> <li>• Differentiate types and explain the indicators of a malfunction on the electrical installation and network equipment;</li> <li>• Explain possible causes of the installation and network equipment malfunction.</li> </ul> <p>❖</p> <ul style="list-style-type: none"> <li>• Indicate the types and explain the working mode of electrical and electronic devices in vehicles;</li> <li>• Explain the procedures to identify malfunctions and methods of their elimination;</li> <li>• Explain the procedures for removing and installing electrical and electronic devices in vehicles;</li> </ul>	<p>Applies skills needed for <u>performing medium complex, diverse, occasionally non-standard operative work</u>.</p> <p>Collects and selects <u>information</u>.</p> <p><u>Handles specialized equipment</u>, machines and plant by using different material.</p>	<ul style="list-style-type: none"> <li>• Make electrical installations based on electrical schemes;</li> <li>• Set up and connect electrical and electronic devices to installations;</li> <li>• Perform a validity check of set up electrical installations;</li> <li>• Use adequate tools and devices for production and set up of electrical installations and network equipment.</li> </ul> <p>❖</p> <ul style="list-style-type: none"> <li>• Establish malfunctions in the electrical installation and network equipment by using specialized software;</li> <li>• Remove malfunctions in the electrical installation and network equipment according to the software procedure;</li> <li>• Apply assessment and measurement techniques;</li> <li>• Use adequate tools and equipment for working on the electrical installation and network equipment;</li> <li>• <u>Operate</u> the vehicle in the prescribed manner during the execution of repairs.</li> </ul> <p>❖</p> <ul style="list-style-type: none"> <li>• Remove and place electrical and electronic devices in vehicles;</li> <li>• Identify and remove malfunctions of electrical devices in vehicles;</li> <li>• <u>Operate</u> vehicle in the prescribed manner during the execution of repairs.</li> </ul> <p>❖</p>	<p>Performs work activities <u>independently</u>, according to determined technical and technological procedures.</p> <p><u>Organizes</u> own work and/or the work of others.</p> <p><u>Assumes responsibility</u> for applying procedures and means as well as for organizing own work.</p> <p><u>Demonstrates entrepreneurial spirit</u> in work.</p>	<ul style="list-style-type: none"> <li>• Perform conferred tasks knowingly, <u>responsibly</u> and in a precise manner;</li> <li>• Manifest kindness, communication, initiative, unobtrusiveness and flexibility in relation to clients and colleagues;</li> <li>• <u>Organize</u> their time efficiently;</li> <li>• Express positive attitude towards the significance of functional and technical soundness of tools, instruments, accessories and equipment;</li> <li>• Comply with the manufacturer's instructions and procedures for installing and maintenance;</li> <li>• Exhibit a positive attitude towards the professional and ethical standards and values.</li> </ul>
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	<ul style="list-style-type: none"> <li>• Explain the importance of periodicity and complexity of maintaining electrical and electronic devices in vehicles.</li> <li>❖</li> <li>• Specify the types of electrical and electronic systems for the modification or upgrade in vehicles;</li> <li>• Explain the working mode and methods of installation, connection and setting of additional electrical equipment;</li> <li>• Explain procedures to identify malfunctions on the additional equipment and the methods of their elimination.</li> <li>❖</li> <li>• Indicate the quality standards to be applied in auto electrical practice and explain their significance;</li> <li>• Explain the importance of assessing the quality on the performed work;</li> <li>• Differentiate between the regulations on the warranty of the services performed;</li> <li>• Explain the importance of applying regulations from the field of environmental protection.</li> <li>❖</li> <li>• Explain the work organization principles;</li> <li>• Describe organizational schemes of production facilities, car dealerships and services;</li> <li>• Name principles and</li> </ul>		<ul style="list-style-type: none"> <li>• Determine the manner and the place for the modification / upgrade of electrical and electronic systems in vehicles according to manufacturer's technical instructions;</li> <li>• <u>Install, connect and configure</u> additional electrical and electronic equipment in vehicles;</li> <li>• Identify and remove malfunctions in additional electrical and electronic equipment.</li> <li>❖</li> <li>• Examine and calibrate devices and equipment according to established rules and dynamics;</li> <li>• Check functions of all devices after the intervention;</li> <li>• Perform a test drive;</li> <li>• Keep prescribed documentation of work carried out;</li> <li>• Sort and dispose of waste in an appropriate manner during the work process.</li> <li>❖</li> <li>• Communicate with a client about the vehicle malfunction;</li> <li>• Open work orders.</li> <li>• Establish the work procedure based on of the test protocol from the information system and for a specific vehicle;</li> <li>• Prepare the work place and the technical documentation;</li> <li>• Determine the necessary materials, spare parts and</li> </ul>		
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	<p>elements of their own work planning;</p> <ul style="list-style-type: none"> <li>• Explain the ways of storing of spare parts, basic and additional electrical equipment;</li> <li>• Distinguish between the types of technical documentation;</li> <li>• Indicate the types and explain the purpose and possibilities of work resources (instruments and tools);</li> <li>• Indicate the elements and explain the method for calculating the price of services;</li> <li>• Explain the basic principles of entrepreneurship;</li> <li>• Explain the rules of providing first aid;</li> <li>• Explain the importance of applying the regulations in the field of safety, occupational safety and health and fire prevention.</li> </ul> <p>❖</p> <ul style="list-style-type: none"> <li>• Differentiate between types of work and service documentation.</li> </ul>		<p>performance timeline;</p> <ul style="list-style-type: none"> <li>• Calculate the price of a service provided;</li> <li>• Apply modern communication means;</li> <li>• <u>Work in a team</u>.</li> <li>• Maintain work recourses;</li> <li>• Apply protective assets and equipment at work.</li> </ul> <p>❖</p> <ul style="list-style-type: none"> <li>• Fill in a work order, a malfunction report, a report on the material and spare parts expenditure;</li> <li>• Fill in the service book of customers and warranties;</li> <li>• Fill in the log;</li> <li>• Use the <u>information</u> means.</li> </ul>		
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<b>Title of qualification:</b> MECHATRONICS TECHNICIAN <b>Qualification code:</b> N/A <b>Indicated NQF level:</b> 4  <b>This qualification is based on learning outcomes:</b> Yes			<b><u>Document used for this comparison</u></b> <b>Type:</b> Teaching plan and programme, Education Gazette – 9/07, 6/10,5/11 <b>Date of development:</b> 2007/2011 <b>Institution – Developer:</b> IIE		
<b>Assessment of the relation between expression of learning outcomes for this qualification and NQF level descriptors:</b> LO are defined in the Teaching plan and programme. LO are defined on the level of qualification, but also within TPP there are defined for subjects/ modules. LO are formulated in the form of Knowledge, Skills and Abilities and attitudes. LO are linked to the Professional Competencies (work description). Following work competencies are defined for this qualification: <ul style="list-style-type: none"><li>• Participate in the development of design and technological documentation.</li><li>• Mount mechatronic devices and system components.</li><li>• Diagnose malfunctions of mechatronic devices and systems.</li><li>• Repair malfunctions of mechatronic devices and systems.</li><li>• Maintain mechatronic equipment.</li><li>• Perform administrative tasks.</li></ul> LO are in line with descriptors for the NQF level 4.			<b>Assessment of gap between expression of learning outcomes for this qualification and NQF level descriptors:</b> No significant gaps were identified. AA – “Performs work activities independently” is not expressed per se but it is implied and it can be deduced from the formulation in Serbian language.		
Level 4 descriptors NQF versus Identified Learning Outcomes					
NQF level 4 descriptor	Related LO Descriptors:	NQF level 4 descriptor	Related LO Descriptors:	NQF level 4 descriptor	Related LO Descriptors:
Knowledge and understanding		Skills		Abilities and attitudes (AA)	



<p>Possesses <u>systematized theoretical or comprehensive vocational knowledge</u> necessary for performing work and/or for further learning.</p>	<ul style="list-style-type: none"> <li>• Distinguish between the phases of designing and mechatronic systems maintenance.</li> <li>❖</li> <li>• Distinguish elements of mechatronic systems: sensors and transducers, actuators, electric drives - electrical equipment, power transmission components, hydraulic and pneumatic components;</li> <li>• Understand the principles of operation of various mechatronic systems;</li> <li>• Understand the importance of testing and the role of selected test programme in setting and correcting the system parameters.</li> <li>❖</li> <li>• Distinguish between types of measurements, methods of measurement, measuring instruments and devices;</li> <li>• Explain methods of measuring mechanical and electrical values;</li> <li>• Estimate the accuracy and determine the measurement error;</li> <li>• Explain the diagnostic methods used in mechatronics;</li> <li>• Determine the type of diagnostic method depending on the nature of error and the type of mechatronic component / system.</li> </ul>	<p><u>Applies skills needed for performing complex, diverse, frequently non-standard work</u> by using different methods and techniques.</p> <p>Performs <u>critical selection of relevant information</u> gathered from various sources and applies it in work or study.</p> <p><u>Handles different equipment</u>, machines and plants by using different material.</p>	<ul style="list-style-type: none"> <li>• Use technical documentation;</li> <li>• Use software packages in the preparation of technical documentation.</li> <li>❖</li> <li>• Analyse the connection diagrams;</li> <li>• <u>Select and use</u> the mechatronic system manufacturers' catalogues;</li> <li>• Install sensors, actuators and control devices;</li> <li>• Connect the elements of mechatronic systems according to the diagram;</li> <li>• Adjust / set and correct the system parameters according to manufacturer's specification.</li> <li>❖</li> <li>• <u>Collect data</u> on the status of mechatronic system by user / operator;</li> <li>• Visually check the machines and the equipment soundness;</li> <li>• Check the power sources (actuating supply, control unit, power supply);</li> <li>• Carry out the measurement of the electrical and mechanical structure parameters as well as the parameters of hydraulic and pneumatic systems;</li> <li>• Use SCADA systems in diagnostics;</li> <li>• Determine the type of error in the mechatronic system;</li> <li>• Decide on an intervention</li> </ul>	<p>Performs work <u>independently</u> with occasional consultations.</p> <p><u>Organizes and controls</u> own work and/or the work of small teams.</p> <p><u>Identifies problems</u> and participate in their resolution.</p> <p>Assumes <u>responsibility</u> for selecting procedures and means as well as for own work and/or the work of others.</p>	<ul style="list-style-type: none"> <li>• Perform conferred tasks knowingly, <u>responsibly</u> and in a precise and neat manner;</li> <li>• <u>Organize and plan</u> their time efficiently;</li> <li>• Exhibit a positive attitude towards the significance of implementation of regulations and valid standards in mechanical and electrical engineering;</li> <li>• Express a positive attitude towards the functional and technical soundness of machines and devices used in carrying out the work;</li> <li>• Manifest kindness, communication skills and flexibility in relation with colleagues;</li> <li>• Work as <u>a part of a team</u>;</li> <li>• Manifest initiative and resourcefulness in carrying out the work;</li> <li>• Exercise <u>analytical skills, creativity and innovation</u> in carrying</li> </ul>
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	<p>❖</p> <ul style="list-style-type: none"> <li>• Understand the operating principles of the mechatronic system elements;</li> <li>• Differ types of characteristic malfunctions in mechatronic systems;</li> <li>• Understand the testing procedures;</li> <li>• Determine the appropriate test programme;</li> <li>• Propose a suitable replacement of individual (compatible) components without affecting the operation of mechatronic systems;</li> <li>• Propose solutions to setting up short links (by-pass) to facilitate the operation of a part of the mechatronic system.</li> </ul> <p>❖</p> <ul style="list-style-type: none"> <li>• Estimate the importance and the use of the mechatronic system surveillance;</li> <li>• Solve problems algorithmically and programme a PLC on the basic level.</li> </ul> <p>❖</p> <ul style="list-style-type: none"> <li>• Indicate the types of supporting documentation in the process of maintenance, repair and requisitions (work order, periodic reports, etc.).</li> </ul>		<p>based on conducted diagnostic procedure.</p> <p>❖</p> <ul style="list-style-type: none"> <li>• Prepare the necessary tools, equipment and accessories;</li> <li>• <u>Choose the best method</u> of dismantling a component that is broken and dismantle it;</li> <li>• Replace a failed component, a working fluid etc., according to the equipment manufacturer's instructions;</li> <li>• Adjust / set the system parameters;</li> <li>• Test the mechatronic system components and the mechatronic system in accordance with the prescribed procedure.</li> </ul> <p>❖</p> <ul style="list-style-type: none"> <li>• Perform periodic / preventive inspection of the mechatronic system installation;</li> <li>• Replace the elements that have carried out a prescribed number of hours according to the planned preventive maintenance;</li> <li>• Clean, degrease and lubricate the mechatronic system components;</li> <li>• Use digital systems, microcomputers and PLC in mechatronics;</li> <li>• Implement the safety and occupational health protection measures as well as environmental protection measures.</li> </ul> <p>❖</p>		<p>out the work;</p> <ul style="list-style-type: none"> <li>• Be client-oriented and adaptable to work changes;</li> <li>• <u>Solve work-related problems</u>;</li> <li>• Manifest a positive attitude towards the professional and ethical standards and values.</li> </ul>
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			<ul style="list-style-type: none"> <li>• Keep records of malfunctions;</li> <li>• Plan the spare parts procurement;</li> <li>• Record the maintenance interventions;</li> <li>• Draft a report on replaced parts.</li> </ul>		
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<b>Title of qualification:</b> MECHANICAL PROCESSING OPERATOR <b>Qualification code:</b> N/A <b>Indicated NQF level:</b> 3  <b>This qualification is based on learning outcomes:</b> Yes			<b>Document used for this comparison</b> <b>Type:</b> Teaching plan and programme, Official Gazette RS -Educational Gazette – 4/04, 17/04, 8/06 <b>Date of development:</b> 2004 <b>Institution – Developer:</b> IIE		
<b>Assessment of the relation between expression of learning outcomes for this qualification and NQF level descriptors:</b> LO are defined in the Teaching plan and programme. LO are defined on the level of qualification, but also within TPP there are defined for subjects/ modules. LO are formulated in the form of Knowledge, Skills and Abilities and attitudes. LO are linked to the Professional Competencies (work description). Following work competencies are defined for this qualification: <ul style="list-style-type: none"><li>• Process a workpiece by using conventional and numerically controlled lathes.</li><li>• Perform processing by using conventional and numerically controlled milling machines.</li><li>• Perform processing by using conventional and numerically controlled grinding machines.</li><li>• Adjust machine tools for processing by cutting.</li></ul> LO are in line with descriptors for the NQF level 3.			<b>Assessment of gap between expression of learning outcomes for this qualification and NQF level descriptors:</b> No significant gaps were identified. “Entrepreneurial spirit in work” is not precisely and directly expressed in LO. Ability to “solve work-related problems” is one of the descriptors for qualification on the 4th NQF level. AA – “Performs work activities independently” is not expressed per se but is implied and it can be deduced from in the formulation in Serbian language.		
Level 3 descriptors NQF versus Identified Learning Outcomes					
NQF level 3 descriptor	Related LO Descriptors:	NQF level 3 descriptor	Related LO Descriptors:	NQF level 3 descriptor	Related LO Descriptors:
Knowledge and understanding		Skills		Abilities and attitudes (AA)	
Possesses <u>general and vocational knowledge of facts, basic principles and processes</u> necessary for	<ul style="list-style-type: none"><li>• Explain the <u>basic concepts</u> of the cutting process by using a lathe;</li><li>• Determine the technological parameters of the processing regime;</li><li>• Indicate the essential parts of lathes and explain the</li></ul>	Applies skills needed for <u>performing medium complex, diverse, occasionally non-standard operative work.</u>  Collects and selects	<ul style="list-style-type: none"><li>• Read the technical and technological documentation;</li><li>• Develop the technical and technological documentation manually and on the computer when creating simple parts;</li><li>• Develop technological processes and calculations for</li></ul>	Performs work activities <u>independently</u> , according to determined technical and technological procedures.	<ul style="list-style-type: none"><li>• Perform conferred tasks timely, knowingly, <u>responsibly</u> and in a neat manner;</li><li>• <u>Organize</u> their time efficiently;</li></ul>

performing work and/or for further learning.	<p>operating mode of lathes;</p> <ul style="list-style-type: none"> <li>• Indicate the essential parts of lathes and explain the mode of operation lathes;</li> <li>• Indicate the characteristics of universal, special, semi-automatic and automatic numerically controlled lathes;</li> <li>• Indicate the application and select the cutting tools used when cutting on a lathe;</li> <li>• Indicate the application and select accessories for clamping and receiving during the processing on a lathe;</li> <li>• Indicate the application and select measuring and control equipment when abrading;</li> <li>• Describe the procedures of processing external and internal surfaces by abrading methods;</li> <li>• Describe the actions of automation of lathes and specify the necessary elements for automation;</li> <li>• Describe the procedure for sharpening knives and gimlets;</li> <li>• Specify procedures for cleaning and preventive maintenance of lathes;</li> <li>• Describe the operating mode of electric, pneumatic, hydraulic and mechanical structures of lathes;</li> <li>• Indicate the necessary measures and procedures for the protection at work and specify the means, installations and devices used</li> </ul>	<p>information.</p> <p><u>Handles specialized equipment</u>, machines and plant by using different material.</p>	<p><u>less complex processing</u>;</p> <ul style="list-style-type: none"> <li>• Apply professional terminology in technical communication and communication with associates;</li> <li>• Prepare a conventional lathe with clamping utensils and receiving accessories for carrying out the work based on the technical and technological documentation;</li> <li>• Prepare an automated lathe with necessary clamping utensils and elements of automation, based on the technological documentation;</li> <li>• Prepare a numerically controlled lathe with the elements necessary for carrying out the work, based on the technical and technological documentation;</li> <li>• Select, prepare and assemble the tools for processing by cutting on a lathe according to the technological documentation;</li> <li>• Process the workpiece by performing abrading operations based on technological documentation and according to technological standards;</li> <li>• Measure and control the raw part and the workpiece based on the technical and technological documentation;</li> <li>• Measure and control the raw part based on the</li> </ul>	<p><u>Organizes own work and/or the work of others.</u></p> <p><u>Assumes responsibility</u> for applying procedures and means as well as for organizing own work.</p> <p><u>Demonstrates entrepreneurial spirit</u> in work.</p>	<ul style="list-style-type: none"> <li>• Exhibit a positive attitude towards the significance of implementation of regulations and valid standards in mechanical engineering;</li> <li>• Express positive attitude towards the functional and technical soundness of machines, devices and tools used in carrying out the work;</li> <li>• Manifest kindness, communication skills, unobtrusiveness and flexibility in relation with colleagues;</li> <li>• <u>Solve work problems</u>;</li> <li>• Manifest a positive attitude towards the professional and ethical standards and values.</li> </ul>
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	<p>in Occupational Safety and Health;</p> <ul style="list-style-type: none"> <li>• Indicate the necessary elements for the development of technical documentation</li> </ul> <p>Indicate the necessary elements for creating technical documentation;</p> <ul style="list-style-type: none"> <li>• Develop the technical and technological documentation manually and via software;</li> <li>• Develop the calculations of the technological process of producing with a lathe;</li> <li>• Keep the production documentation during the work process;</li> <li>• Indicate the necessary elements for preparing lathes to produce a workpiece;</li> <li>• Identify the causes of producing faulty pieces;</li> <li>• Describe the mode of operating and handling numerically controlled lathes.</li> </ul> <p>❖</p> <ul style="list-style-type: none"> <li>• Explain the <u>basic concepts</u> of the cutting process by using a milling machine;</li> <li>• Determine the technological parameters of the processing regime;</li> <li>• Indicate the essential parts of a milling machine and explain the operating mode of milling machines;</li> <li>• Indicate the characteristics (common and universal) of numerically controlled, horizontal, vertical, portal,</li> </ul>		<p>technological documentation;</p> <ul style="list-style-type: none"> <li>• Remove the causes of producing faulty pieces; Finish the faulty pieces in need for refinement;</li> <li>• Prepare daily reports and calculation elements;</li> <li>• Maintain and clean the lathe;</li> </ul> <p>Deposit the production material according to the environmental standards;</p> <ul style="list-style-type: none"> <li>• Implement measures for personal protection at work and environmental protection;</li> <li>• Apply the utensils and devices that are used in the Occupational Safety and Health of those working on a lathe.</li> </ul> <p>❖</p> <ul style="list-style-type: none"> <li>• Read the technical and technological documentation;</li> <li>• Develop the technical and technological documentation manually and on the computer when creating simple parts;</li> <li>• Develop technological processes and calculations for less complex processing;</li> <li>• Apply the professional terminology in technical communication and communication with associates;</li> <li>• Prepare a conventional milling machine with clamping utensils and receiving and positioning accessories and a based on the technical technological documentation;</li> </ul>		
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	<p>machine tool, copying and special milling machines;</p> <ul style="list-style-type: none"> <li>• Indicate the application and select the cutting tool used in processing when cutting on a milling machine;</li> <li>• Indicate the application and select accessories for clamping, receiving and positioning when processing on a milling machine;</li> <li>• Indicate the application and select the measuring and control equipment in processing by milling;</li> <li>• Describe the procedure of processing of flat surfaces, angled holes, grooves, helical grooves, toothing and special procedures for processing on a milling machine;</li> <li>• Describe the actions of the automation of milling machines and specify the necessary elements for automation;</li> <li>• Specify the procedures for cleaning and preventive maintenance of milling machines;</li> <li>• Describe the operating mode of electric, pneumatic, hydraulic and mechanical structures of a milling machine;</li> <li>• Indicate the necessary measures and procedures for the protection at work and specify the means and devices used in Occupational Safety and Health;</li> <li>• Indicate the necessary</li> </ul>		<ul style="list-style-type: none"> <li>• Prepare an automated milling machine with necessary clamping utensils, receiving and positioning accessories and automation elements based on the technological documentation;</li> <li>• Prepare a numerically controlled milling machine with the necessary elements for carrying out the work, based on the technical and technological documentation;</li> <li>• Select, prepare and assemble the tools for processing by cutting on a milling machine according to the technological documentation;</li> <li>• Process the workpiece by using milling operations based on technological documentation and according to the technological standards;</li> <li>• Measure and control the raw part and the workpiece based on the technical and technological documentation;</li> <li>• Remove the causes of producing faulty pieces; Finish the faulty pieces in need for refinement;</li> <li>• Prepare daily reports and calculation elements;</li> <li>• Maintain and clean the milling machine;</li> <li>• Deposit the production material according to the environmental standards;</li> <li>• Implement the measures for</li> </ul>		
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	<p>elements for the development of technical documentation;</p> <ul style="list-style-type: none"> <li>• Develop the technical and technological documentation manually and via software;</li> </ul> <p>Develop the calculations of the technological process of a milling machine production;</p> <ul style="list-style-type: none"> <li>• Keep the production documentation during the work process;</li> <li>• Indicate the necessary elements for preparing a milling machine to produce a workpiece;</li> <li>• Identify the causes of producing faulty pieces;</li> <li>• Describe the mode of operating and handling numerically controlled milling machines.</li> </ul> <p>❖</p> <ul style="list-style-type: none"> <li>• Explain the <u>basic concepts</u> of the cutting process by using a grinding machine;</li> <li>• Determine the technological parameters of the processing regime;</li> <li>• Indicate the essential parts of a grinding machine and explain its operating mode;</li> <li>• Indicate characteristics of flat surface grinding machines, grinding machines for external and internal cylindrical grinding, grinders without spikes, grinders for sharpening tools and numerically controlled grinder machines;</li> <li>• Indicate the application and</li> </ul>		<p>personal protection at work and environmental protection;</p> <ul style="list-style-type: none"> <li>• Apply the utensils and devices that are used in the Occupational Safety and Health of those working on a milling machine.</li> </ul> <p>❖</p> <ul style="list-style-type: none"> <li>• Read the technical and technological documentation;</li> <li>• Develop the technical and technological documentation manually and on the computer when creating simple parts;</li> <li>• Develop technological processes and calculations for less complex processing;</li> <li>• Apply professional terminology in technical communication and communication with associates;</li> <li>• Mount, centre and align the grinding wheel;</li> <li>• Prepare a conventional grinding machine with clamping utensils and receiving accessories for carrying out the work based on the technical and technological documentation;</li> <li>• Prepare an automated grinding machine with necessary clamping utensils and automation elements based on the technological documentation;</li> <li>• Prepare a numerically controlled grinding machine with the elements necessary</li> </ul>		
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	<p>select the cutting tools used when processing on a grinding machine;</p> <ul style="list-style-type: none"> <li>• Indicate the application and select accessories for clamping and receiving when processing on a grinding machine;</li> <li>• Explain the process of setting, centering and aligning the grinding wheel;</li> <li>• Indicate the application and select the measuring and control equipment in grinding processing;</li> <li>• Describe the procedure of processing the external and internal surfaces by grinding;</li> <li>• Describe the actions of the automation of grinding machines and specify the necessary elements for automation;</li> <li>• Specify the procedures for cleaning and preventive maintenance of grinding machines;</li> <li>• Describe the operating mode of electric, pneumatic, hydraulic and mechanical structures of a grinding machine;</li> <li>• Indicate the necessary measures and procedures for the protection at work and specify the means and devices used in Occupational Safety and Health;</li> <li>• Know the necessary elements for the development</li> </ul>		<p>for carrying out the work, based on the technical and technological documentation;</p> <ul style="list-style-type: none"> <li>• Select, prepare and assemble the tools for processing by grinding on a grinding machine according to the technological documentation;</li> <li>• Process the workpiece by grinding operations based on technological documentation and according to technological standards;</li> <li>• Process the workpiece by performing grinding operations based on technological documentation and according to technological standards;</li> <li>• Measure and control the raw part and the workpiece based on the technical and technological documentation;</li> <li>• Remove the causes of producing faulty pieces;</li> <li>• Finish the faulty pieces in need for refinement;</li> <li>• Prepare daily reports and calculation elements;</li> <li>• Maintain and clean the grinding machine;</li> <li>• Deposit the production material according to the environmental standards;</li> <li>• Implement the measures for personal protection at work and environmental protection;</li> <li>• Apply the utensils and devices that are used in the Occupational Safety and</li> </ul>		
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	<p>of technical documentation;</p> <ul style="list-style-type: none"> <li>• Indicate the necessary elements for the development of technical documentation;</li> <li>• Develop the technical and technological documentation manually and via software;</li> <li>• Develop the calculations of the technological process of grinding production;</li> <li>• Keep the production documentation during the work process;</li> <li>• Indicate the necessary elements for preparing a grinding machine to produce a workpiece;</li> <li>• Identify the causes of producing faulty pieces;</li> <li>• Describe the mode of operating and handling numerically controlled grinding machines.</li> </ul> <p>❖</p> <ul style="list-style-type: none"> <li>• Explain the development of the technical and technological documentation;</li> <li>• Explain the standards for testing geometric accuracy of the production of machine tools;</li> <li>• Explain the operating mode of electric, pneumatic, hydraulic and mechanical structures;</li> <li>• Explain the operating mode of numerically controlled machine tools;</li> <li>• Explain the operating mode of the control unit of a</li> </ul>		<p>Health of those working on a grinding machine.</p> <p>❖</p> <ul style="list-style-type: none"> <li>• Read the technical and technological documentation;</li> <li>• Apply the professional terminology in communication;</li> <li>• Check the geometric accuracy of production according to the standard;</li> <li>• Check the proper operating and functioning of electrical, pneumatic, hydraulic and mechanical structures and the control unit on a machine tool;</li> <li>• Forward the information on the malfunction of elements to the relevant services;</li> <li>• Equip ordinary, universal, special and semi-automatic, automatic, NC and conventional lathes, milling machines and grinders with clamping utensils, cutting tools and the mass production;</li> <li>• Adjust the clamping utensils, cutting tools and automation elements on machine tools;</li> <li>• Measure and control the workpiece;</li> <li>• Conduct periodic maintenance and cleaning of machine tools;</li> <li>• Load a programme into the control unit;</li> <li>• Enter the data on the tool correction in the NC machines;</li> <li>• Test the programme in the simulator or the NC machine;</li> </ul>		
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	<p>numerically controlled machine;</p> <ul style="list-style-type: none"> <li>• Know the operating and the working mode of machine tools;</li> <li>• Explain the enhancements to the ordinary, universal, special and semi-automatic, automatic and NC (numerically controlled) machine tools;</li> <li>• Indicate the clamping accessories and the cutting tools on machine tools;</li> <li>• Indicate the measuring and the control equipment;</li> <li>• Indicate the elements of periodic cleaning and maintenance of machine tools;</li> <li>• Explain the procedures for eliminating faults in processing by machine tools;</li> <li>• Indicate the essential parts of a NC machine and its operating method;</li> <li>• Explain the method of managing a NC machine via the control unit;</li> <li>• Explain the process of programming NC machines;</li> <li>• Explain the operating mode in manual or automatic work regime of numerically controlled machines;</li> <li>• Indicate the necessary measures and procedures for the protection at work and specify the means and devices used in the Occupational Safety and Health;</li> <li>• Indicate the necessary health</li> </ul>		<ul style="list-style-type: none"> <li>• Draft, measure and control the first piece made in the NC machine in manual or automatic operating mode;</li> <li>• Check the integrity and functionality of devices and gadgets for the implementation of the Occupational Safety and Health and environmental protection measures;</li> <li>• Warn workers about the consequences of failing to implement the Occupational Safety and Health and personal protection measures;</li> <li>• Train workers to conduct proceedings in case of accident according to the prescribed procedure.</li> </ul>		
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	<p>and safety and environmental protection measures when making parts with machine tools;</p> <ul style="list-style-type: none"> <li>• Explain the process of intervention in the case of accident according to the prescribed procedure.</li> </ul>				
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<b>Title of qualification:</b> FINANCE ADMINISTRATOR <b>Qualification code:</b> N/A <b>Indicated NQF level:</b> 4			<b>Document used for this comparison</b> <b>Type:</b> Teaching plan and programme, Official Gazette RS - Education Gazette - 14/04, 11/05, 18/07, 1/08, 1/13 <b>Date of development:</b> 2004/2013 <b>Institution – Developer:</b> IIE		
<b>This qualification is based on learning outcomes:</b> Yes					
<b>Assessment of the relation between expression of learning outcomes for this qualification and NQF level descriptors:</b> LO are defined in the Teaching plan and programme. LO are defined on the level of qualification, but also within TPP there are defined for subjects/ modules. LO are formulated in the form of Knowledge, Skills and Abilities and attitudes. LO are linked to the Professional Competencies (work description). Following work competencies are defined for this qualification: <ul style="list-style-type: none"><li>• Organize their own work in the field of finance and accounting.</li><li>• Carry out activities involving the accounting documentation.</li><li>• Conduct the payment transactions.</li><li>• Perform account assignments and post business changes into financial records.</li><li>• Conduct financial operations.</li><li>• Prepare and make the account statement.</li><li>• Prepare and create reports.</li></ul> LO are in line with descriptors for the NQF level 4.			<b>Assessment of gap between expression of learning outcomes for this qualification and NQF level descriptors:</b> No significant gaps were identified. Problem solving abilities are not specifically expressed in LO. AA – “Performs work activities independently” is not expressed per se but it is implied and it can be deduced from the formulation in Serbian language.		
Level 4 descriptors NQF versus Identified Learning Outcomes					
NQF level 4 descriptor	Related LO Descriptors:	NQF level 4 descriptor	Related LO Descriptors:	NQF level 4 descriptor	Related LO Descriptors:
Knowledge and understanding		Skills		Abilities and attitudes	

<p>Possesses <u>systematized theoretical or comprehensive vocational knowledge</u> necessary for performing work and/or for further learning.</p>	<ul style="list-style-type: none"> <li>• Describe the preparation and the organization of the work process;</li> <li>• Define the division of labour and specialization;</li> <li>• Distinguish between the legal, the professional and the internal regulations in accounting.</li> </ul> <p>❖</p> <ul style="list-style-type: none"> <li>• Define the concept of accounting document;</li> <li>• Name the important elements of an accounting document;</li> <li>• Classify accounting documents;</li> <li>• Distinguish between the internal and the external accounting documentation;</li> <li>• Distinguish between the objectives of formal, computational and substantial audit;</li> <li>• Indicate the reasons, ways and timeline of storing and keeping the accounting documentation;</li> <li>• Differed databases.</li> </ul> <p>❖</p> <ul style="list-style-type: none"> <li>• Define payment transactions;</li> <li>• Name and explain the types of payment transactions;</li> <li>• Explain the use of the (national and international) payment transaction instruments;</li> <li>• Distinguish between the cash and the cashless payments;</li> <li>• Explain the treasury operations;</li> </ul>	<p><u>Applies skills needed for performing complex, diverse, frequently non-standard work</u> by using different methods and techniques.</p> <p>Performs <u>critical selection of relevant information</u> gathered from various sources and applies it in work or study.</p> <p><u>Handles different equipment, machines and plants</u> by using different material.</p>	<ul style="list-style-type: none"> <li>• Prepare and organize work at the work place;</li> <li>• <u>Follow and implement the changes in the legal, professional and internal regulations</u> of finance and accounting.</li> </ul> <p>❖</p> <ul style="list-style-type: none"> <li>• Compile and issue the accounting documentation;</li> <li>• Compile, classify and file the accounting documentation;</li> <li>• Notice formal, computational and substantial shortcomings in the accounting documentation and correct errors;</li> <li>• Archive the documentation;</li> <li>• <u>Use software</u> for the database management.</li> </ul> <p>❖</p> <ul style="list-style-type: none"> <li>• Open and manage business accounts;</li> <li>• Fill in the (national and international) payment transaction instruments;</li> <li>• Compose the treasury documentation and the treasury log;</li> <li>• Prepare the documentation for payments from a RSD current account;</li> <li>• Prepare the documentation for payments from a foreign currency current account;</li> <li>• Conduct cash and cashless payments;</li> <li>• Conduct billing payments;</li> <li>• Establish the financial assets state based on the bank</li> </ul>	<p>Performs work <u>independently</u> with occasional consultations.</p> <p><u>Organizes and controls</u> own work and/or the work of small teams.</p> <p><u>Identifies problems</u> and participate in their resolution.</p> <p>Assumes <u>responsibility</u> for selecting procedures and means as well as for own work and/or the work of others.</p>	<ul style="list-style-type: none"> <li>• Execute work tasks accurately, promptly and systematically;</li> <li>• Perform conferred tasks diligently, <u>responsibly</u>, timely and in a precise and neat manner;</li> <li>• <u>Organize their time</u> efficiently;</li> <li>• Manifest positive attitude towards the functional and technical soundness of equipment and work recourses;</li> <li>• Manifest kindness, communication skills, initiative, unobtrusiveness and flexibility in relation to customers and co-workers;</li> <li>• Express a positive attitude towards the professional and ethical standards and values;</li> <li>• Manifest a <u>positive attitude towards lifelong learning and education</u>;</li> <li>• Behave in accordance with the concept of sustainable</li> </ul>
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	<ul style="list-style-type: none"> <li>• Explain the role and significance of a current account;</li> <li>• Explain the role and significance of a foreign currency account;</li> <li>• Explain the role and significance of a bank statement.</li> </ul> <p>❖</p> <ul style="list-style-type: none"> <li>• Name and explain the rules and principles of keeping accounting records;</li> <li>• Explain the account assignment process;</li> <li>• Differ double accounting financial records;</li> <li>• Explain the process of keeping record of business changes in the financial records.</li> </ul> <p>❖</p> <ul style="list-style-type: none"> <li>• Explain the significance of a financial plan;</li> <li>• Define a financial analysis;</li> <li>• Name and explain the indicators of the company financial situation;</li> <li>• Explain the principles of the foreign trade operations;</li> <li>• Define a payment balance;</li> <li>• Explain the structure of a payment balance;</li> <li>• Indicate the elements of a report on the company financial operations;</li> <li>• Differentiate between possible solutions to improve the financial position and the financial situation of the</li> </ul>		<p>statement and prepare a report based on it.</p> <p>❖</p> <ul style="list-style-type: none"> <li>• Open business financial records;</li> <li>• Perform account assignments and post the business changes of assets, capital and liabilities on the basis of available documentation, respecting the accounting rules and principles;</li> <li>• Post business changes into financial records;</li> <li>• Close business records;</li> <li>• Prepare report on the current state of the bookkeeping accounts.</li> </ul> <p>❖</p> <ul style="list-style-type: none"> <li>• Participate in creating financial plans;</li> <li>• Monitor the financial plan implementation;</li> <li>• Monitor the acquiring and spending of financial assets;</li> <li>• Prepare the data for assessing the financial situation of the company;</li> <li>• Prepare the data for analysis of the company financial operations;</li> <li>• Conduct activities involving securities;</li> <li>• Prepare the documentation for obtaining bank loans;</li> <li>• Maintain correspondence with banks;</li> <li>• Prepare the data for creating the payment balance;</li> </ul>		development.
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	<p>company.</p> <p>❖</p> <ul style="list-style-type: none"> <li>• Define the terms 'wages' and 'wage allowances';</li> <li>• Explain the elements a wage and a wage allowance;</li> <li>• Explain the procedure of accounting wages and wage allowances;</li> <li>• Define the term 'tax';</li> <li>• Specify the types and characteristics of taxes;</li> <li>• Explain the method of calculating taxes;</li> <li>• Explain the expenditure of the work process elements;</li> <li>• Indicate the expenditure types;</li> <li>• Explain the ways of calculating amortization;</li> <li>• Define the concept of expenditure calculation;</li> <li>• Differ types of the expenditure calculation;</li> <li>• Define the terms of revenue, expenditure and business results;</li> <li>• Distinguish types of revenue and expenditure;</li> <li>• Define the concept of company profit;</li> <li>• Distinguish partial economic principles of business conducting;</li> <li>• Explain the method of calculating productivity, efficiency, profitability and liquidity;</li> <li>• Explain the company position on the basis of partial</li> </ul>		<ul style="list-style-type: none"> <li>• Prepare and present periodic reports on the financial position and operations of the com.</li> </ul> <p>❖</p> <ul style="list-style-type: none"> <li>• Prepare and calculate the data on wages and wage allowances;</li> <li>• Calculate taxes and contributions on wages;</li> <li>• Calculate VAT;</li> <li>• Calculate the tax from the results;</li> <li>• Calculate other taxes and contributions;</li> <li>• Submit tax returns;</li> <li>• Draw forms on calculated and paid taxes;</li> <li>• Calculate the amortization;</li> <li>• Calculate the expenditures;</li> <li>• Calculate the revenue, expenditures and business results;</li> <li>• Calculate interests;</li> <li>• Calculate productivity, efficiency and profitability;</li> <li>• Calculate the solvency indicators;</li> <li>• Draw up a calculation of the cost of products;</li> <li>• Draw up a calculation of the cost of goods and services.</li> </ul> <p>❖</p> <ul style="list-style-type: none"> <li>• Update the data for creating reports;</li> <li>• Harmonize transactions and balances from the general ledger and financial records before the census and before the preparation of annual</li> </ul>		
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	<p>economic principles;</p> <ul style="list-style-type: none"> <li>• Define the concept of prices of products, goods and services;</li> <li>• Distinguish types of product, goods and service prices;</li> <li>• Explain a price calculation.</li> </ul> <p>❖</p> <ul style="list-style-type: none"> <li>• Specify tasks related to the inventory reconciliation;</li> <li>• Specify rules and explain the procedures for creating reports;</li> <li>• Explain the importance and the structure of financial reporting;</li> <li>• Explain the importance of the tax balance;</li> <li>• Explain the importance and the structure of financial and tax reports.</li> </ul>		<p>financial reports;</p> <ul style="list-style-type: none"> <li>• Create statistical and other reports;</li> <li>• Participate in the preparation of financial reports (balance sheets);</li> <li>• Present financial reports;</li> <li>• Create the tax balance;</li> <li>• Analyse the data on the company financial situation.</li> </ul>		
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<b>Title of qualification:</b> ARITECHTURAL TECHNICIAN <b>Qualification code:</b> N/A <b>Indicated NQF level:</b> 4  <b>This qualification is based on learning outcomes:</b> Yes			<b>Document used for this comparison</b> <b>Type:</b> Teaching plan and programme, Official Gazette RS - Education Gazette - 13/07, 10/08, 3/10, 5/11, 2/12, 13/15, 18/15 <b>Date of development:</b> 2007/2015 <b>Institution – Developer:</b> IIE		
<b>Assessment of the relation between expression of learning outcomes for this qualification and NQF level descriptors:</b> LO are defined in the Teaching plan and programme. LO are defined on the level of qualification, but also within TPP there are defined for subjects/ modules. LO are formulated in the form of Knowledge, Skills and Abilities and attitudes. LO are linked to the Professional Competencies (work description). Following work competencies are defined for this qualification: <ul style="list-style-type: none"><li>• Develop design and technical documentation.</li><li>• Prepare a project of construction organization.</li><li>• Organize the preparatory work on the construction site.</li><li>• Organize activities for the construction of a building structure.</li><li>• Keep the construction site documentation.</li><li>• Prepare the technical documentation and the administrative procedure activities.</li><li>• Prepare the assessment of the value of building construction objects.</li></ul> LO are in line with descriptors for the NQF level 4.			<b>Assessment of gap between expression of learning outcomes for this qualification and NQF level descriptors:</b> No significant gaps were identified. Ability to “organisation of small teams” is under skills. AA – “Performs work activities independently” is not expressed per se but it is implied and it can be deduced from the formulation in Serbian language.		
Level 4 descriptors NQF versus Identified Learning Outcomes					
NQF level 4 descriptor	Related LO Descriptors:	NQF level 4 descriptor	Related LO Descriptors:	NQF level 4 descriptor	Related LO Descriptors:
Knowledge and understanding		Skills		Abilities and attitudes	
Possesses <u>systematized theoretical or comprehensive vocational knowledge</u>	• Interpret the laws and regulations, policies and recommendations, norms and standards in the field of architecture, urban planning and construction;	<u>Applies skills</u> needed for <u>performing complex, diverse, frequently non-standard work</u> by using different	• Apply the laws and regulations, policies and recommendations, norms and standards in the field of architecture, urban planning and construction;	Performs work <u>independently</u> with occasional consultations.  Organizes and	• Perform conferred tasks knowingly, <u>responsibly</u> and in a precise manner;  • Organize their time

necessary for performing work and/or for further learning.	<ul style="list-style-type: none"> <li>• Read the design and technical documentation of architectural-construction projects;</li> <li>• Explain the phases of architectural-construction design;</li> <li>• Distinguish between the building materials and the structural elements in the process of recording the existing stage / as built drawings;</li> <li>• Specify the relevant elements of a technical drawing, a scheme and details of an architectural-construction project;</li> <li>• Explain the method for positioning elements;</li> <li>• Indicate the elements of the extended bill of quantities of architectural- construction projects.</li> </ul> <p>❖</p> <ul style="list-style-type: none"> <li>• Read the design and technical documentation of a construction organization project;</li> <li>• Read the construction site scheme;</li> <li>• Read the static and dynamic plan;</li> <li>• Read the position drawings;</li> <li>• Read the statistical calculations, quantities and types of construction materials.</li> </ul> <p>❖</p> <ul style="list-style-type: none"> <li>• Read the design and technical documentation;</li> </ul>	<p>methods and techniques.</p> <p>Performs <u>critical selection of relevant information</u> gathered from various sources and applies it in work or study.</p> <p><u>Handles different equipment</u>, machines and plants by using different material.</p>	<ul style="list-style-type: none"> <li>• Use the tools to create architectural-construction projects;</li> <li>• Apply drawing software (Word, Excel and CAD) in the development of architectural-construction documentation;</li> <li>• Mark the relevant elements of a technical drawing, in schemes and in details of architectural--construction projects;</li> <li>• Complete annexes in the design and technical documentation;</li> <li>• Create the extended bill of quantities of architectural-construction works;</li> <li>• Calculate dimensions of the elements in the design and technical documentation of architectural -construction projects;</li> <li>• Copy, format, pack and archive drawings in the project and in the technical documentation;</li> <li>• Make scale models of buildings and grounds.</li> </ul> <p>❖</p> <ul style="list-style-type: none"> <li>• Apply drawing software (Word, Excel and CAD) in the development of the construction site/construction site schemes organization projects;</li> <li>• Enter the parameters into the dynamic plan;</li> <li>• <u>Create</u> the static and dynamic material plan;</li> </ul>	<p><u>controls</u> own work and/or the work of small teams.</p> <p><u>Identifies problems</u> and participate in their resolution.</p> <p>Assumes <u>responsibility</u> for selecting procedures and means as well as for own work and/or the work of others.</p>	<p>efficiently;</p> <ul style="list-style-type: none"> <li>• Exhibit a positive attitude towards the significance of implementation of regulations and the valid standards in architecture, urban planning and construction;</li> <li>• Express positive attitude towards the functional and technical soundness of equipment and devices used in carrying out the work;</li> <li>• Manifest kindness, communication and flexibility in relation with colleagues;</li> <li>• <u>Work in a team</u>;</li> <li>• <u>Solve problems</u> and adapt to the work changes;</li> <li>• Express self-criticism and objectivity in performing the tasks;</li> <li>• Exhibit a positive attitude towards the professional and ethical standards and values.</li> </ul>
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	<ul style="list-style-type: none"> <li>• Read the construction site scheme;</li> <li>• Read the static calculations, quantities and types of construction materials;</li> <li>• Read the construction site scheme;</li> <li>• Read the static and the dynamic plan.</li> </ul> <p>❖</p> <ul style="list-style-type: none"> <li>• Interpret the laws and regulations, policies and recommendations, norms and standards in the field of architecture, urban planning and construction;</li> <li>• Read the design and technical documentation;</li> <li>• Read the construction site scheme;</li> <li>• Read the static calculations;</li> <li>• Differentiate quantities and types of construction materials;</li> <li>• Read the static and the dynamic resource plan;</li> <li>• Read the contracting details;</li> <li>• Distinguish between types and purposes of construction tools and machines;</li> <li>• Read the construction site documentation.</li> </ul> <p>❖</p> <ul style="list-style-type: none"> <li>• Read the design and technical documentation of architectural-construction projects;</li> <li>• Distinguish between building materials and construction elements in the process of recording the existing state /</li> </ul>		<ul style="list-style-type: none"> <li>• Complete annexes to the design and technical documentation of the construction site organization;</li> <li>• Copy, format, pack and archive drawings in the project and technical documentation of the construction site organization.</li> </ul> <p>❖</p> <ul style="list-style-type: none"> <li>• Use the tools and devices for measuring and marking the building structures and construction sites;</li> <li>• <u>Organize groups of construction workers</u> on the site according to the type of preparatory activities.</li> </ul> <p>❖</p> <ul style="list-style-type: none"> <li>• Apply the laws and regulations, policies and recommendations, norms and standards in the field of architecture, urban planning and construction;</li> <li>• Use the tools and devices for measuring and marking;</li> <li>• <u>Develop</u> a contracting detail;</li> <li>• Implement the required changes in the design and technical documentation;</li> <li>• Differentiate between the types of the construction materials;</li> <li>• Develop the elements of the static and the dynamic plan;</li> <li>• <u>Organize groups of construction workers</u> on the site according to the work type and norms;</li> </ul>		
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	<p>as built drawings;</p> <ul style="list-style-type: none"> <li>• Name the relevant elements of a technical drawing, in schemes and in details of architectural-construction projects.</li> </ul> <p>❖</p> <ul style="list-style-type: none"> <li>• Interpret the laws and regulations, policies and recommendations, norms and standards in the field of architecture, urban planning and construction;</li> <li>• Read the design and technical documentation of architectural-construction projects;</li> <li>• Describe the course of the administrative procedures;</li> <li>• Name the required documents for the administrative procedures.</li> </ul> <p>❖</p> <ul style="list-style-type: none"> <li>• Interpret the laws and regulations, policies and recommendations, norms and standards in the field of architecture, urban planning and construction;</li> <li>• Read the design and technical documentation;</li> <li>• Explain the course of the valuation assessment of the building structures;</li> <li>• Distinguish between the building materials and construction elements in the process of recording the existing stage / as built drawings;</li> </ul>		<ul style="list-style-type: none"> <li>• Calculate a building quote for a particular group of construction works;</li> <li>• <u>Co-ordinate the work of teams and machinery;</u></li> <li>• <u>Control the implementation</u> of regulations and resources for health and safety at work;</li> <li>• Monitor and keep records of the dynamic plan implementation;</li> <li>• Monitor the implementation of the Concrete Elaborate.</li> </ul> <p>❖</p> <ul style="list-style-type: none"> <li>• Use the measuring tools and devices for recording as built;</li> <li>• Apply drawing software (Word, Excel and CAD) in the development of the construction documentation;</li> <li>• Perform the positioning of elements;</li> <li>• Keep the construction log and the measurement book;</li> <li>• Account situations;</li> <li>• Complete the annexes to the design and technical documentation;</li> <li>• Develop a bill of quantities of the executed work.</li> <li>• Copy, format, pack and archive drawings in the project and technical documentation.</li> </ul> <p>❖</p> <ul style="list-style-type: none"> <li>• <u>Apply the laws and regulations, policies and recommendations, norms and standards</u> in the field of architecture, urban planning and construction;</li> </ul>		
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	<ul style="list-style-type: none"> <li>• Identify the relevant assessment elements of the building structure;</li> <li>• Read the static calculations, quantities and types of construction materials.</li> </ul>		<ul style="list-style-type: none"> <li>• Use the tools and measuring devices on site;</li> <li>• Apply drawing software (Word, Excel i CAD);</li> <li>• Obtain local requirements and a urban permit for construction, expansion and outbuilding of building construction structures;</li> <li>• Complete the annexes to the design and technical documentation;</li> <li>• Copy, format, pack and archive drawings in the project and technical documentation.</li> </ul> <p>❖</p> <ul style="list-style-type: none"> <li>• Use the tools and measuring devices;</li> <li>• Prepare the sketches of the building structure;</li> <li>• <u>Determine</u> the type and the quality of building materials;</li> <li>• Determine the quality of installed building materials and the work executed;</li> <li>• Prepare the minutes of the quantity and quality of construction materials;</li> <li>• Prepare the account statement on the construction value of the structure according to the position and based on the given parameters.</li> </ul>		
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<b>Title of qualification:</b> DRY CONSTRUCTION FITTER (DRY LINER) <b>Qualification code:</b> N/A <b>Indicated NQF level:</b> 3  <b>This qualification is based on learning outcomes:</b> Yes	<b>Document used for this comparison</b> <b>Type:</b> Teaching plan and programme, Official Gazette RS -Educational Gazette - 4/04, 12/04, 11/05, 8/06, 3/07, 5/11, 7/12, 03/14, 08/14 <b>Date of development:</b> 2004/2015 <b>Institution – Developer:</b> IIE				
<b>Assessment of the relation between expression of learning outcomes for this qualification and NQF level descriptors:</b> LO are defined in the Teaching plan and programme. LO are defined on the level of qualification, but also within TPP there are defined for subjects/ modules. LO are formulated in the form of Knowledge, Skills and Abilities and attitudes. LO are linked to the Professional Competencies (work description). Following work competencies are defined for this qualification: <ul style="list-style-type: none"><li>• Organize and prepare the work.</li><li>• Create sub-structures.</li><li>• Install plasterboards and ornaments.</li></ul> LO are in line with descriptors for the NQF level 3.	<b>Assessment of gap between expression of learning outcomes for this qualification and NQF level descriptors:</b> No significant gaps were identified. Attitude “Entrepreneurial spirit in work” is not precisely expressed in LO, only as an “initiative and resourcefulness in carrying out the work”. Ability to “solve work-related problems” is one of the descriptors for qualification on the 4th NQF level. AA – “Performs work activities independently” is not expressed per se but is implied and it can be deduced from in the formulation in Serbian language.				
Level 3 descriptors NQF versus Identified Learning Outcomes					
NQF level 3 descriptor	Related LO Descriptors:	NQF level 3 descriptor	Related LO Descriptors:	NQF level 3 descriptor	Related LO Descriptors:
Knowledge and understanding		Skills		Abilities and attitudes (AA)	
Possesses <u>general and vocational knowledge of facts, basic principles and processes</u> necessary for performing work and/or for further learning.	<ul style="list-style-type: none"><li>• Differ the relevant documentation for the realization of a work activity;</li><li>• Use specific details from the conceptual and the contracting project;</li><li>• Indicate the types and explain the structure of construction norms;</li><li>• Apply the calculative factor;</li><li>• Name and explain the phases of creating the bill of</li></ul>	Applies skills needed for <u>performing medium complex, diverse, occasionally non-standard operative work</u> .  Collects and selects <u>information</u> .  <u>Handles specialized equipment, machines</u>	<ul style="list-style-type: none"><li>• Standardize the construction works;</li><li>• Conduct the analysis of prices for specific positions within their profession;</li><li>• Make the specification of labour force and materials for works in dry construction;</li><li>• Prepare a dynamic plan for the specific work (duration and the inclusion of certain activities, man-hours);</li></ul>	Performs work activities <u>independently</u> , according to determined technical and technological procedures.  <u>Organizes own work and/or the work of others.</u>	<ul style="list-style-type: none"><li>• Perform conferred tasks knowingly, <u>responsibly</u> and in a precise manner;</li><li>• <u>Organize and plan their time</u> efficiently;</li><li>• Exhibit a positive attitude towards the significance of implementation of</li></ul>

	<p>quantities (description of the positions);</p> <ul style="list-style-type: none"> <li>• Indicate the technological process of work organization in the workplace;</li> <li>• Indicate the principles of safety and health at work;</li> <li>• Explain the purpose and importance of using the equipment and protection gear at work;</li> <li>• Explain the purpose and importance of the proper use of ladders and work platforms;</li> <li>• Indicate the operations for the groundwork preparation;</li> <li>• Describe the properties, method of use, transport, storage and proper protection of materials used in dry construction;</li> <li>• Indicate the means used for working in dry construction; (tools, machines, equipment, etc.).</li> </ul> <p>❖</p> <ul style="list-style-type: none"> <li>• Indicate the types of tools for marking and measuring the surfaces for setting up the sub-structure;</li> <li>• Explain the process of measuring, marking and cutting the sub-structure profile;</li> <li>• Specify the appropriate thermal and sound insulation materials;</li> <li>• Name and explain the use of different elements of mounting technique</li> </ul>	<p>and plant by using different material.</p>	<ul style="list-style-type: none"> <li>• Calculate the cost of individual construction positions;</li> <li>• Calculate the construction works in their profession;</li> <li>• Mount ladders and work platforms;</li> <li>• Prepare the groundwork;</li> <li>• <u>Select</u> the appropriate materials for a given work position;</li> <li>• Put the necessary materials at the work place;</li> <li>• <u>Select</u> and prepare the appropriate tools, machines and equipment;</li> <li>• Apply the safety and health protection measures.</li> </ul> <p>❖</p> <ul style="list-style-type: none"> <li>• Select and use the appropriate tools;</li> <li>• Scale and mark the surface for setting up the sub-structure;</li> <li>• Cut and place the thermal / acoustic insulating material;</li> <li>• Mount the elements of the metal and the wooden substructures;</li> <li>• Mount bearers for the installation elements into the previously mounted sub-structures.</li> </ul> <p>❖</p> <ul style="list-style-type: none"> <li>• Measure and mark plasterboards;</li> <li>• Cut plasterboards;</li> <li>• Processes the plasterboard edges as a preparation for mounting;</li> </ul>	<p><u>Assumes responsibility</u> for applying procedures and means as well as for organizing own work.</p> <p>Demonstrates <u>entrepreneurial spirit</u> in work.</p>	<p>regulations and the valid standards in construction;</p> <ul style="list-style-type: none"> <li>• Express positive attitude towards the functional and technical soundness of equipment and devices used in carrying out the work;</li> <li>• Manifest kindness, communication and flexibility in relation with colleagues;</li> <li>• <u>Work in a team</u>;</li> <li>• Is client-oriented;</li> <li>• Manifest <u>initiative and resourcefulness</u> in carrying out the work;</li> <li>• Is adaptable to changes in work and <u>solve work-related problems</u>;</li> <li>• Manifest a positive attitude towards the professional and ethical standards and values.</li> </ul>
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	<p>(Anchors, plugs, screws, etc.);</p> <ul style="list-style-type: none"> <li>• Name and explain the types of bearers for the installation elements.</li> </ul> <p>❖</p> <ul style="list-style-type: none"> <li>• Indicate the types of tools for marking and measuring of plasterboards;</li> <li>• Explain the procedure of dispensing, marking, cutting and processing of compounds of plasterboards and the binder openings on them;</li> <li>• Explain the procedures of mounting plasterboards;</li> <li>• Explain the procedures of processing plasterboard compounds (bandaging);</li> <li>• Explain the procedures of processing plasterboard compounds with other construction materials (splitters);</li> <li>• Select plaster elements and plaster ornaments according to the characteristics and requirements of the interior and explain the method of its fabrication and installation;</li> <li>• Explain the characteristics, the method of preparation and installation of artificial stone and stucco marble, in accordance with the interior.</li> </ul>		<ul style="list-style-type: none"> <li>• Mount plasterboards (mechanical attaching and fixing);</li> <li>• Fabricate different plaster elements and ornaments (the simple and the complex ones);</li> <li>• Process surfaces with the techniques of artificial stone and stucco marble.</li> </ul>		
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<b>Title of qualification:</b> TECHNICIAN FOR FURNITURE AND INTERIOR DESIGN <b>Qualification code:</b> N/A <b>Indicated NQF level:</b> 4 <b>This qualification is based on learning outcomes:</b> Yes			<b>Document used for this comparison</b> <b>Type:</b> Teaching plan and programme, Official Gazette RS - Education Gazette - 8/05, 15/06, 1/08, 08/09, 09/14 <b>Date of development:</b> 2005/2014 <b>Institution – Developer:</b> IIE		
<b>Assessment of the relation between expression of learning outcomes for this qualification and NQF level descriptors:</b> LO are defined in the Teaching plan and programme. LO are defined on the level of qualification, but also within TPP there are defined for subjects/ modules. LO are formulated in the form of Knowledge, Skills and Abilities and attitudes. LO are linked to the Professional Competencies (work description). Following work competencies are defined for this qualification: <ul style="list-style-type: none"><li>• Create technical documentation.</li><li>• Monitor the process of manufacturing furniture and interior elements.</li><li>• Control the quality of products and raw materials.</li></ul> LO are in line with descriptors for the NQF level 4.			<b>Assessment of gap between expression of learning outcomes for this qualification and NQF level descriptors:</b> No significant gaps were identified. AA – “Performs work activities independently” is not expressed per se but it is implied and it can be deduced from the formulation in Serbian language.		
Level 4 descriptors NQF versus Identified Learning Outcomes					
NQF level 4 descriptor	Related LO Descriptors:	NQF level 4 descriptor	Related LO Descriptors:	NQF level 4 descriptor	Related LO Descriptors:
Knowledge and understanding		Skills		Abilities and attitudes (AA)	
Possesses <u>systematized theoretical or comprehensive vocational knowledge</u> necessary for performing work and/or for further learning.	<ul style="list-style-type: none"><li>• Apply the rules of free-hand drawing, technical drawing and orthogonal and oblique design;</li><li>• Construct all types of furniture and interior elements;</li><li>• Analyse the harmony of shape, ergonomics, function, architectural style and the rules on the allocation of furniture in space;</li><li>• Select the machines and</li></ul>	<u>Applies skills</u> needed for <u>performing complex, diverse, frequently non-standard work</u> by using different methods and techniques.  Performs <u>critical selection of relevant</u>	<ul style="list-style-type: none"><li>• Measure and determine the length measures of the facility;</li><li>• Calculate furniture dimensions according to the measures established at the facility;</li><li>• Draft a technical sketch free-hand;</li><li>• Draft a technical drawing;</li><li>• Shape furniture and interior elements;</li></ul>	Performs work <u>independently</u> with occasional consultations.  <u>Organizes and controls own work</u> and/or the work of small teams.  Identifies problems	<ul style="list-style-type: none"><li>• Perform conferred tasks knowingly, <u>responsibly</u> and in a precise and neat manner;</li><li>• <u>Organize and plan their time</u> efficiently;</li><li>• Exhibit a positive attitude towards the</li></ul>

	<p>tools needed for the manufacture of products;</p> <ul style="list-style-type: none"> <li>• Explain the functions of machines and tools;</li> <li>• Briefly describe the machine operations;</li> <li>• Briefly describe the structure and purpose of preparing production documentation;</li> <li>• Indicate the elements and explain the structure of product price calculation;</li> <li>• Indicate the elements and explain the structure of offers and contracts;</li> <li>• Briefly describe the principles of <u>entrepreneurial activities</u>;</li> <li>• Explain the method of making a business plan.</li> </ul> <p>❖</p> <ul style="list-style-type: none"> <li>• Specify the <u>principles of organization</u> of manufacturing;</li> <li>• Specify the organization stages in manufacturing corresponding products;</li> <li>• Analyse the manufacture organization and the workplace organization;</li> <li>• Explain the method of the operational plan development;</li> <li>• Indicate the principles of operational planning.</li> </ul> <p>❖</p> <ul style="list-style-type: none"> <li>• Indicate the production materials;</li> <li>• Analyse the characteristics of production materials;</li> <li>• Indicate the types of technical</li> </ul>	<p><u>information</u> gathered from various sources and applies it in work or study.</p> <p><u>Handles different equipment</u>, machines and plants by using different material.</p>	<ul style="list-style-type: none"> <li>• Find the best solution of furniture arrangement in space;</li> <li>• Demonstrate and defend the concept of their project (model);</li> <li>• Create the product model according to the technical drawing (participate in the creation - perform the operations required to produce models, prototypes or patterns);</li> <li>• Decompose the product into constructive components (make a constructive elaboration);</li> <li>• Calculate the product price;</li> <li>• Write an offer;</li> <li>• Prepare cutting lists (calculate dimensions of constructive components during the manufacture);</li> <li>• Make cutting schemes (find the best way to fit the formats of constructive components into the form of a board, when cutting, to achieve as much as possible of quantitative utilization);</li> <li>• Calculate the expenditure of production materials and create the approval for the use of material in manufacturing;</li> <li>• <u>Select technological operations</u> and determine their order;</li> <li>• Form and assemble the work order documentation;</li> <li>• Write the production and</li> </ul>	<p>and participate in their resolution.</p> <p>Assumes <u>responsibility</u> for selecting procedures and means as well as for own work and/or the work of others.</p>	<p>significance of implementation of regulations and valid standards in woodworking and furniture designing;</p> <ul style="list-style-type: none"> <li>• Express positive attitude towards the functional and technical soundness of machines, devices and tools used in carrying out the work;</li> <li>• Manifest kindness, communication skills and flexibility in relation with colleagues;</li> <li>• Be client-oriented;</li> <li>• Be adaptable to work changes and <u>solve work-related problems</u>;</li> <li>• Manifest <u>initiative and resourcefulness</u> in carrying out the work;</li> <li>• Manifest a positive attitude towards the professional and ethical standards and values.</li> </ul>
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	<p>control;</p> <ul style="list-style-type: none"> <li>• Analyse the methods of technical control.</li> </ul>		<p>business reports and records;</p> <ul style="list-style-type: none"> <li>• Calculate elements of a business plan.</li> </ul> <p>❖</p> <ul style="list-style-type: none"> <li>• Determine (establish and calculate) the time required to perform technological operations (establish the standard time);</li> <li>• Develop the operational plan (plan the timeline of the course of technological operations);</li> <li>• Analyse the production and technical documentation;</li> <li>• Compare the planned with the achieved production goals.</li> </ul> <p>❖</p> <ul style="list-style-type: none"> <li>• Examine the quality of raw materials;</li> <li>• Measure the accuracy of the shape and dimensions of production materials;</li> <li>• Measure the accuracy of shape and dimensions of the product that is constructive components of the product;</li> <li>• Examine the accuracy and quality of mechanical processing in manufacturing;</li> <li>• Examine the quality of surface processing;</li> <li>• Examine the quality of packaging and storing.</li> </ul>		
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<b>Title of qualification:</b> CARPENTER <b>Qualification code:</b> N/A <b>Indicated NQF level:</b> 3  <b>This qualification is based on learning outcomes:</b> Yes			<b>Document used for this comparison</b> <b>Type:</b> Teaching plan and programme, Official Gazette RS -Educational Gazette - 8/05, 15/06, 1/08, 08/09, 09/14 <b>Date of development:</b> 2005/2014 <b>Institution – Developer:</b> IIE		
<b>Assessment of the relation between expression of learning outcomes for this qualification and NQF level descriptors:</b> LO are defined in the Teaching plan and programme. LO are defined on the level of qualification, but also within TPP there are defined for subjects/ modules. LO are formulated in the form of Knowledge, Skills and Abilities and attitudes. LO are linked to the Professional Competencies (work description). Following work competencies are defined for this qualification: <ul style="list-style-type: none"><li>• Prepare the work place.</li><li>• Perform the manual processing of wood materials.</li><li>• Perform the mechanical processing of wood materials.</li><li>• Perform the surface processing and product protection.</li><li>• Assemble and mount the elements.</li><li>• Sell products.</li></ul> LO are in line with descriptors for the NQF level 3.			<b>Assessment of gap between expression of learning outcomes for this qualification and NQF level descriptors:</b> No significant gaps were identified. AA - “Entrepreneurial spirit in work” is not precisely expressed in LO, only as an “initiative and resourcefulness in carrying out the work”. Ability to “solve work-related problems” is one of the descriptors for qualification on the 4 <sup>th</sup> NQF level. AA – “Performs work activities independently” is not expressed per se but it is implied and it can be deduced from the formulation in Serbian language.		
Level 3 descriptors NQF versus Identified Learning Outcomes					
NQF level 3 descriptor	Related LO Descriptors:	NQF level 3 descriptor	Related LO Descriptors:	NQF level 3 descriptor	Related LO Descriptors:
Knowledge and understanding		Skills		Abilities and attitudes (AA)	
Possesses <u>general and vocational knowledge of facts, basic principles and processes</u> necessary for performing work	<ul style="list-style-type: none"><li>• Name and explain the work place elements setting;</li><li>• Indicate the preparatory-final activities in the execution of technological operations;</li><li>• Indicate structural-operational characteristics of woodworking machines and equipment;</li><li>• Name and explain the rules</li></ul>	Applies skills needed for <u>performing medium complex, diverse, occasionally non-standard operative work.</u>  Collects and selects information.	<ul style="list-style-type: none"><li>• Lubricate machines;</li><li>• Ensure the electric power supply for the machine in accordance with the regulations;</li><li>• Install the means of safety at work on the machine before performing the operation;</li><li>• Implement the safety and</li></ul>	Performs work activities <u>independently</u> , according to determined technical and technological procedures.	<ul style="list-style-type: none"><li>• Perform conferred tasks knowingly, <u>responsibly</u> and in a precise manner;</li><li>• <u>Organize and plan their time</u> efficiently;</li><li>• Exhibit a positive</li></ul>

and/or for further learning.	<p>and elements of the electric power supply in accordance with the machine power;</p> <ul style="list-style-type: none"> <li>• Indicate the types of lubricants and the woodworking machines lubrication methods;</li> <li>• Explain the method of installation, maintenance and storage of tools;</li> <li>• Explain the risks, the safety and occupational health protection measures while performing technological operations;</li> <li>• Differ material designations on technical drawings of wood constructions;</li> <li>• Explain the procedure of products breakdown in constructive compounds;</li> <li>• Illustrate the application of the connecting elements and constructive solutions in carpentry products construction;</li> <li>• Explain the method of electing the operations of manual and mechanical processing, depending on the technological requirements.</li> </ul> <p>❖</p> <ul style="list-style-type: none"> <li>• Indicate the tools that are used to perform the appropriate manual operation and to explain the tool selection method;</li> <li>• Explain the methods of preparing and sharpening hand tools;</li> </ul>	<p><u>Handles specialized equipment</u>, machines and plant by using different material.</p>	<p>occupational health protection devices during the execution of all operations;</p> <ul style="list-style-type: none"> <li>• Implement the personal protection means;</li> <li>• Perform the validity check of tools and install them onto machines;</li> <li>• Determine the degree of the tool sharpness and deterioration and apply the technologically useable tools;</li> <li>• Create a tool or a pattern required for safe and accurate work execution;</li> <li>• Fill in the manufacture and warehouse documentation during the production process (work orders, material indents, reports on the work task implementation).</li> </ul> <p>❖</p> <ul style="list-style-type: none"> <li>• Make an immediate selection, preparation and use of the appropriate tool depending on the processing type;</li> <li>• Assess the tool sharpness degree during the work performance;</li> <li>• Perform the procedures of sharpening and preparing the hand tools;</li> <li>• Perform the manual processing operations (cutting, planning, slotting, purifying, grinding).</li> </ul> <p>❖</p> <ul style="list-style-type: none"> <li>• Make an immediate <u>selection</u> and preparation and use the</li> </ul>	<p><u>Organizes own work</u> and/or the work of others.</p> <p><u>Assumes responsibility</u> for applying procedures and means as well as for organizing own work.</p> <p><u>Demonstrates entrepreneurial spirit</u> in work.</p>	<p>attitude towards the significance of implementation of regulations and valid standards in woodworking;</p> <ul style="list-style-type: none"> <li>• Express positive attitude towards the functional and technical soundness of machines, devices and tools used in carrying out the work;</li> <li>• Manifest kindness, communication skills and flexibility in relation with colleagues;</li> <li>• Manifest <u>initiative and resourcefulness</u> in carrying out the work;</li> <li>• Be adaptable to work changes and <u>solve work-related problems</u>;</li> <li>• Manifest a positive attitude towards the professional and ethical standards and values.</li> </ul>
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	<ul style="list-style-type: none"> <li>• Indicate and explain the method of conducting manual processing operations.</li> <li>❖</li> <li>• Indicate the tools that are used to perform the corresponding mechanical operations and explain the method of examining their condition and usability;</li> <li>• Name and explain the procedure for fixing tools and machine adjusting;</li> <li>• Explain the methods for identifying the processing regime for mechanical operations;</li> <li>• Name and explain the method of conducting mechanical processing operations;</li> <li>• Name and explain the procedures, regimes and application of materials in the process of tacking workpieces;</li> <li>• Indicate the health and safety risks at work while performing all mechanical operations;</li> <li>• Name and explain the process of applying protective means on the machine depending on the machine and the execution of technological operations;</li> <li>• Create drawings and use them to program CNC machines in CAD and CAM computer programmes.</li> <li>❖</li> <li>• Recognize the type of wood</li> </ul>		<p>appropriate tools depending on the processing type;</p> <ul style="list-style-type: none"> <li>• Assess the degree of deterioration and functionality of the tool that is needed to perform the technological operations of mechanical processing;</li> <li>• Assess the state of the machine, protection means, accuracy and quality of processing during the operation execution;</li> <li>• Reset the machine and install tools;</li> <li>• Perform the operations of mechanical processing (material cutting , planning-sizing, milling, profiling, turning, drilling, slotting, grinding, formatting and veneering edges - processing the composition);</li> <li>• <u>Carry out the selection</u> and preparation of adhesives, determine the sticking regime and perform workpieces sticking (longitudinal and cross continuation, frame formations, veneering);</li> <li>• Conduct the CNC machine programming;</li> <li>• Implement the safety and occupational health protection measures while performing all the above listed mechanical operations.</li> <li>❖</li> <li>• Select the type of wood base;</li> </ul>		
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	<p>base, explain differences in structure and appearance between deciduous and coniferous trees and explain the effect on the surface processing;</p> <ul style="list-style-type: none"> <li>• Recognize the type of wood panels;</li> <li>• Name the basic faults of wood surfaces significant for surface processing and the faults caused by previous operations in the production process;</li> <li>• Describe resources (materials) needed for eliminating individual faults;</li> <li>• Estimate the required amount of materials (calculation according to the norms of consumption);</li> <li>• Indicate the types of adhesives that can be delivered onto the wood surface and the effects and tools to be applied with;</li> <li>• Indicate the types of sealants, the procedures of filling in pores and ways of calculating consumption;</li> <li>• Indicate the types of wood materials that need surface levelling and the reasons for levelling;</li> <li>• Indicate the types of materials that are used for levelling wood surfaces;</li> <li>• Indicate the parameters of solidification of compounds for levelling, depending on the</li> </ul>		<ul style="list-style-type: none"> <li>• <u>Select</u> a surface preparation procedure depending on the type of surface;</li> <li>• Determine the type of fault of the wood surface;</li> <li>• Determine the type of fault caused by previous operations and eliminate it;</li> <li>• Select a procedure for eliminating or concealing the fault;</li> <li>• Select materials for the surface processing in accordance with the chosen procedure and desired processing quality;</li> <li>• Calculate the required amount of materials for repairing;</li> <li>• Conduct the resin removal process;</li> <li>• If needed, prepare the cement by mixing the filler, colours and binding materials;</li> <li>• If necessary, mix the components of two-component cement;</li> <li>• Apply the cement manually onto the fault to be disguised;</li> <li>• Determine the moment when the further processing of the fairing area is possible;</li> <li>• Calculate the required amount of materials for the fairing;</li> <li>• Apply the pore sealant manually by spraying and rubbing;</li> <li>• Calculate the required amount of materials for the</li> </ul>		
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	<p>compound type;</p> <ul style="list-style-type: none"> <li>• Indicate the norms of material consumption and calculate the required amount;</li> <li>• Explain the way steel plates ("cycling") effect the surface;</li> <li>• Describe the theoretical geometric shape of real workpieces surface;</li> <li>• Explain the connection between the wood surface roughness and the abrasive agent granulation, i.e. the influence of the order and direction of applying the abrasives of different granulation;</li> <li>• Indicate the machines and devices used for grinding;</li> <li>• Explain the pressure control of injecting an abrasive agent when processing on automatic machines;</li> <li>• Describe the structure and explain the effect of an abrasive agent on the surface to be processed;</li> <li>• Indicate the peculiarities of the procedure of grinding flat surfaces, profiles, curved and embossed surfaces, turned and small workpieces;</li> <li>• Explain the safety and occupational health protection measures to be applied when grinding;</li> <li>• Indicate the types of dyes and explain the differences in the implementation of certain types of dyes;</li> </ul>		<p>filling in;</p> <ul style="list-style-type: none"> <li>• Apply the levelling material onto the surface manually by spraying and towelling, put off the workpiece for the solidification of the coating, and define the moment for the further surface processing;</li> <li>• Grind the applied material for levelling of workpieces until it has been polished to a "surface" and remove all the dents and bumps;</li> <li>• Calculate the required amount of materials;</li> <li>• Prepare a steel plate (a "cycling") for work ("straight" and "pull the wire");</li> <li>• Remove the previously inflicted layers of materials and perform purification by using cycling;</li> <li>• Set the abrasive (tape - paper) on the machine (or handheld device) for grinding with the granulation in accordance with the desired final roughness;</li> <li>• Perform the grinding process on a suitable machine or by hand to the desired level of roughness;</li> <li>• Calculate the required amount of abrasive materials;</li> <li>• Preserve the grinding belts;</li> <li>• If necessary, perform equalization of the surface absorption;</li> <li>• Clean the wood surface from the dust generated by keeping</li> </ul>		
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	<ul style="list-style-type: none"> <li>• Explain the bleaching process;</li> <li>• Indicate norms of material consumption and calculate the required amount;</li> <li>• Indicate the safety and occupational health protection measures when dyeing and bleaching wood surfaces;</li> <li>• Indicate the types of varnish that are currently most often used in the production;</li> <li>• Indicate components and the most important technological characteristics of certain types of varnish;</li> <li>• Indicate the norms of material consumption and calculate the required amount;</li> <li>• Indicate the safety and occupational health protection measures in varnish preparation;</li> <li>• Indicate the methods of applying varnish and explain the characteristics of each type of application;</li> <li>• Indicate the basic parameters that characterize the equipment for applying varnish: explain the principles of operating the spray equipment; explain the principles of operating the equipment and devices for applying and rolling;</li> <li>• Explain the structure and the operating mode of installation for compressed air;</li> <li>• Explain the construction and</li> </ul>		<p>workpieces in the workshop;</p> <ul style="list-style-type: none"> <li>• Apply dye by brush;</li> <li>• Apply dye by spraying;</li> <li>• Apply dye by a sponge or cloth;</li> <li>• Perform bleaching of wood with hydrogen peroxide or shading by using a special pigment coating;</li> <li>• Perform drying and necessary repairs and finish dyed surfaces;</li> <li>• Perform grinding, if the application of the primer has been carried out;</li> <li>• Calculate the required amount of materials;</li> <li>• Use Ford's viscometer (varnish viscosity adjuster);</li> <li>• Calculate the required amount of varnishing materials;</li> <li>• Mix varnish components (varnish and catalyst) to prepare the quantities of the material which can be spent in a certain amount of time for an adequate varnishing surface;</li> <li>• Select a brush or a roller depending on the type of the material applied and the surface shape and type;</li> <li>• Rinse and clean the dust possibly remaining from the previous work in the workspace;</li> <li>• Check the functionality of the compressed air installation: the state of the filter for solid particles and the oil and</li> </ul>		
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	<p>operation mode of devices for purification, ventilation, heating and air overpressure in the workspace;</p> <ul style="list-style-type: none"> <li>• Indicate the required temperature of the working environment and the temperature of workpieces;</li> <li>• Indicate the possible faults when applying varnish by spraying and ways to avoid faults when applying varnish by spraying;</li> <li>• Indicate parameters that determine the quality of varnishing;</li> <li>• Indicate the safety and occupational health protection measures in varnishing and varnish drying;</li> <li>• Explain the ways of varnish drying and indicate the drying phases;</li> <li>• Indicate the faults that can occur while drying and ways to avoid them;</li> <li>• Explain the reasons for the interlayer grinding, polishing and creating matte effect;</li> <li>• Indicate the polishing material consumption norms and calculate the required amount;</li> <li>• Indicate the safety and occupational health protection measures in the final processing.</li> </ul> <p>❖</p> <ul style="list-style-type: none"> <li>• Explain the processes of forming assemblies in making</li> </ul>		<p>humidity separator on the preparatory group;</p> <ul style="list-style-type: none"> <li>• Adjust the spraying equipment;</li> <li>• Adjusts the equipment for pouring or rolling;</li> <li>• Adjust the temperature of the working area and the area for drying varnished workpieces;</li> <li>• Apply varnish by a brush and a roller;</li> <li>• Apply varnish by spraying;</li> <li>• Apply varnish by pouring or rolling;</li> <li>• After applying the varnish, deposit the workpiece for pre-drying in the environment free of high temperature, air flow and dust;</li> <li>• After the pre-drying, lay the workpiece in the dust free drying area with the high temperature and air flow;</li> <li>• Perform interlayer grinding of varnish layers;</li> <li>• Perform polishing to achieve a high gloss effect by using a polishing roller and polishing paste (wax);</li> <li>• Perform the final cleaning of the high-gloss surface by using polish;</li> <li>• Create the matte effect by grinding and steel wool processing;</li> <li>• Perform filling of tiny generated notches by applying matte fluid;</li> <li>• Calculate the required amount of materials;</li> </ul>		
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	<p>wood products;</p> <ul style="list-style-type: none"> <li>• Name and explain the application of auxiliary materials and hardware in adjoining structural parts into assemblies;</li> <li>• Explain the basic design requirements in forming assemblies;</li> <li>• Indicate materials and explain ways of packaging elements and / or products;</li> <li>• Name and explain the constructive solutions for mounting carpentry elements into construction works;</li> <li>• Explain the basic concepts of building;</li> <li>• Explain the basic concepts of modularization in construction;</li> <li>• Specify and explain the characteristics of sealing, adhesive and protective materials used in mounting of carpentry elements in buildings.</li> </ul> <p>❖</p> <ul style="list-style-type: none"> <li>• Explain and specify the principles of creating technical drawings;</li> <li>• Explain and specify the properties, characteristics and application of the basic and auxiliary materials in carpentry;</li> <li>• Explain and specify the functional and structural characteristics of carpentry products;</li> <li>• Explain and specify the application of carpentry links</li> </ul>		<ul style="list-style-type: none"> <li>• Apply the safety and occupational health protection measures in all above mentioned steps, technological phases and the wood surface processing operations.</li> </ul> <p>❖</p> <ul style="list-style-type: none"> <li>• Assess the quality of the final mounting elements;</li> <li>• Mount the elements into the appropriate shape, dimensions and angularity;</li> <li>• Create mounting patterns and tools;</li> <li>• Do the packaging and preservation of manufactured products;</li> <li>• Fill in the warehouses documentation (for placing the finished product into the warehouse);</li> <li>• Perform the procedures of installing the carpentry products in buildings and finished interiors.</li> </ul> <p>❖</p> <ul style="list-style-type: none"> <li>• Communicate with interested clients;</li> <li>• Take measurements and make sketches and drawings of wood products;</li> <li>• Create cutting lists, normative of material consumption, material specifications, estimations of production time consumption and calculation of the product prices;</li> <li>• Make an offer based on</li> </ul>		
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	<p>and hardware in the construction of carpentry products;</p> <ul style="list-style-type: none"> <li>• Explain the method of making cutting lists, norms of basic materials and material specifications;</li> <li>• Explain the method of making calculations of prices and offers for creating carpentry products;</li> <li>• List documents in commercial business operations and explain the method of their preparation;</li> <li>• Specify the principles of marketing and communication with clients.</li> </ul>		<p>clients' requirements;</p> <ul style="list-style-type: none"> <li>• Perform the procurement of necessary materials according to the needs of the product production and installation;</li> <li>• Carry out the promotion and the product placing along with the preparation of appropriate documentation (pro forma invoice, contract, storage exit, delivery note and invoice).</li> </ul>		
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<b>Title of qualification:</b> SPECIALIST IN AGRICULTURAL MECHANIZATION <b>Qualification code:</b> N/A <b>Indicated NQF level:</b> 5  <b>This qualification is based on learning outcomes:</b> No			<b>Document used for this comparison</b> <b>Type:</b> Teaching plan and programme, Official Gazette RS - Education Gazette – 17/97 <b>Date of development:</b> 1997 <b>Institution – Developer:</b> Ministry of education		
<b>Assessment of the relation between expression of learning outcomes for this qualification and NQF level descriptors:</b> LO are not defined. The TPP contains objectives and tasks of the subjects as well as topics within each subject. In the introduction it is specified that “By mastering the programme content, students are qualified for expertly managing the exploitation of field and vegetable crops, fruit and vine crops, florist-horticultural and livestock machinery, for conducting exploitation of equipment for drying, storage and processing of agricultural products and for conducting repairs and maintenance of agricultural machinery and equipment”. Work competencies (work description) are defined. Following work competencies are defined for this qualification: <ul style="list-style-type: none"><li>• (The process of) conducting exploitation of field and vegetable crops machinery and equipment;</li><li>• (The process of) conducting exploitation of fruit and vine crops mechanization and equipment;</li><li>• (The process of) conducting exploitation of florists and horticultural mechanization and equipment;</li><li>• (The process of) conducting exploitation of livestock mechanization and equipment;</li><li>• Management of the process of exploitation of equipment for drying, storage and processing of agricultural products;</li><li>• Management of the process of conducting repairs and maintenance of agricultural machinery and equipment.</li></ul>			<b>Assessment of gap between expression of learning outcomes for this qualification and NQF level descriptors:</b> LO are not defined, so identification of knowledge, skills, abilities and attitudes from the given statement within “Objectives and tasks” of educational subjects is challenging. From the formulation of the subjects’ objectives and tasks LO can be extrapolated and assigned to knowledge or skills, based on the predominant feature. Abilities and attitudes are not defined. Comparison of given statements (objectives and tasks) and NQF level descriptors cannot be done properly.		
Level 5 descriptors NQF versus Identified Learning Outcomes					
NQF level 5 descriptor	Related LO Descriptors:	NQF level 5 descriptor	Related LO Descriptors:	NQF level 5 descriptor	Related LO Descriptors:
Knowledge and understanding		Skills		Abilities and attitudes (AA)	

<p>Possesses specialized vocational knowledge necessary for performing work.</p>	<ul style="list-style-type: none"> <li>• (Exploring) the construction of pumps, hydraulic engines, working cylinders, compressors and fans</li> <li>• (Acquisition of) basic knowledge of the theory of automatic management</li> <li>• (Exploring) the components and systems of automatic management in agricultural machinery</li> <li>• (Introduction to) the general characteristics of mechanization in agriculture</li> <li>• (Introduction to) structures of furnaces for combustion of biomass, boiler plants, drying and storage facilities</li> <li>• (Acquisition of) knowledge of the importance and impact of working conditions (ergonomics) of operators of agricultural machines on their health and the work quality and productivity</li> <li>• (Developing) understanding of meaning and purposes of using elementary elements and microprocessors on mechanical aggregates</li> <li>• (Exploring) the factors and the exploitation reliability of agricultural techniques</li> <li>• (The acquisition of) expert knowledge of organizing work activities in complex</li> </ul>	<p>Applies skills needed for performing complex, specific and mostly non-standard work that demands participating in creating new solutions.</p> <p>Handles specialized equipment, machines and plant and uses different materials.</p>	<ul style="list-style-type: none"> <li>• (Training for) preventive maintenance and detection of work malfunctions</li> <li>• (Exploring) the organization and application of microcomputer measurement and information-management systems on agricultural machines</li> <li>• Organized approach to the problem of repair and maintenance of agricultural technology</li> <li>• (Specific repair equipment</li> <li>• Basics of diagnostics of agricultural technology</li> <li>• (Training for) proper handling of boiler plants and equipment for drying and storage of agricultural products</li> <li>• (Training for) the organization of mechanical works in seed production</li> <li>• (Training for) proper use and maintenance of process technology in agriculture</li> <li>• (Exploring) the factors and the exploitation reliability of agricultural techniques</li> <li>• (Training for) organizing and implementing the repair system-overhaul- of agricultural techniques</li> </ul>	<p>Performs work with a lot of independence in decision making.</p> <p>Organizes, controls and evaluates own work and/or the work of others and trains them.</p> <p>Assumes responsibility for determining own work methods and modes, as well as for the operative work of others.</p> <p>Exhibits entrepreneurship in improving work processes and solves problems in unpredictable situations.</p>	
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	systems of plant production				
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### Approach used/methodological explanation:

The LO are not given as such, so in the column “related LO descriptors” statements from the “Objectives and Tasks” of individual educational subjects were inserted.

Presented distribution of (task) statements within columns is based on assessment of predominant feature of statement, since knowledge and skill are given in the same statement.

Objectives of the educational subjects are formulated as integrated knowledge and skill:

- The objective of teaching hydro-pneumatic technology is qualifying students for proper handling of hydro-pneumatic technology;
- The objective of teaching the automation in agriculture is to qualify students for the use of system of automatic management of agricultural machines;
- The subject objective is to qualify students for organization and realization of repair system - overhaul of agricultural technology;
- The objective of this subject is to qualify students for organization of the repair system – overhaul, the system of development of mechanization and processing technique in agriculture;
- The subject objective is to qualify students for the organization of work of agricultural machinery in complex systems of plant production;
- The subject objective is to enable students to organize work activities in complex agricultural systems.

The translation is accurate (literally) translation of Serbian text so to facilitate the understanding of statements some words are given in bracket.



<b>Title of qualification:</b> WINE GROWER – SPECIALIST <b>Qualification code:</b> N/A <b>Indicated NQF level:</b> 5  <b>This qualification is based on learning outcomes:</b> No			<b>Document used for this comparison</b> <b>Type:</b> Teaching plan and programme, Official Gazette RS - Education Gazette – 17/97 <b>Date of development:</b> 1997 <b>Institution – Developer:</b> Ministry of education		
<b>Assessment of the relation between expression of learning outcomes for this qualification and NQF level descriptors:</b> LO are not defined. The TPP contains objectives and tasks of the subjects as well as topics within each subject. In the introduction it is specified that “By mastering the contents of the programme, students are qualified for professional managing of technological process in production of wine grapes, table grapes and planting material”. Work competencies (work description) are defined. Following work competencies are defined for this qualification: <ul style="list-style-type: none"><li>• (Conducting of the technological process in) the production of wine grapes.</li><li>• (Conducting of the technological process in) the production of table grapes.</li><li>• (Conducting of the technological process in) the production of planting material.</li></ul>			<b>Assessment of gap between expression of learning outcomes for this qualification and NQF level descriptors:</b> LO are not defined, so identification of knowledge, skills, abilities and attitudes from the given statement within “Objectives and tasks” of educational subjects is challenging. From the formulation of the subjects’ objectives and tasks LO can be extrapolated and assigned to knowledge or skills, based on the predominant feature. Comparison of given statements (objectives and tasks) and NQF level descriptors cannot be done properly.		
Level 5 descriptors NQF versus Identified Learning Outcomes					
NQF level 5 descriptor	Related LO Descriptors:	NQF level 5 descriptor	Related LO Descriptors:	NQF level 5 descriptor	Related LO Descriptors:
Knowledge and understanding		Skills		Abilities and attitudes (AA)	
Possesses specialized vocational knowledge necessary for performing work.	<ul style="list-style-type: none"><li>• Determining optimal timeframes for execution of work operations in grape growing</li><li>• Determining the optimal time and method of execution of works in vine production</li></ul>	Applies skills needed for performing complex, specific and mostly non-standard work that demands participating in creating new solutions.  Handles specialized	<ul style="list-style-type: none"><li>• Monitoring the development of plant diseases and pests</li><li>• Implementation of agro-technical measures in grape growing production</li><li>• Monitoring and ensuring product quality</li><li>• Practical exploitation of agricultural technique</li></ul>	Performs work with a lot of independence in decision making.  Organizes, controls and evaluates own work and/or the work of others and trains them.	<ul style="list-style-type: none"><li>• Quality and quantity control of work performed</li><li>• Production and quality control of planting material</li><li>• Quality control of grapes and planting material</li><li>• Control of work.</li></ul>

		equipment, machines and plant and uses different materials.	<ul style="list-style-type: none"> <li>• Proper application of agro-technical measures in vine production</li> <li>• Harvesting, sorting, packing and transport of fruit and plant material</li> <li>• Implementation of agricultural techniques in vine production</li> </ul>	<p>Assumes responsibility for determining own work methods and modes, as well as for the operative work of others.</p> <p>Exhibits entrepreneurship in improving work processes and solves problems in unpredictable situations.</p>	records of work and material consumption
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#### Approach used/methodological explanation:

The LO are not given as such, so in the column “related LO descriptors” statements from the “Objectives and Tasks” of individual educational subjects were inserted.

Presented distribution of (task) statements within columns is based on provisional assessment of predominant feature of statement, since knowledge and skill are given in the same statement.

Objectives of the educational subjects are formulated as integrated knowledge and skill:

- The objective of teaching grape growing is qualifying students for managing technological processes in grape growing production.
- The objective of practical work is training for conducting the operations of organizing and managing the technological process in vine production.

Within each work competencies “work operations” are specified.

Conducting of the technological process in the production of wine grapes consists of the following work operations:

- Participating in the development of technological measures and planning calculations;
- Determining optimal timeframes and methods of execution of specific activities;
- Monitoring the development of plants and plant diseases;
- Quality and quantity control of work performed;
- Participating in standardization of activities;
- Quality control of products;
- Keeping records of work and material consumption;
- Managing the storage and sale of products;
- Training students and interns.

<p><b>Title of qualification:</b> AGRICULTURAL ENGINEER - Zoo-technics</p> <p><b>Qualification code:</b> N/A</p> <p><b>Indicated NQF level:</b> 6</p> <p><b>This qualification is based on learning outcomes:</b> YES but not KSAA</p>	<p><b>Document used for this comparison</b></p> <p><b>Type:</b> Documentation for accreditation of study programme, Basic academic studies, ZOOTECHNICS (180 ECTS)</p> <p><b>Date of development:</b> 2008/2013</p> <p><b>Institution – Developer:</b> University of Kragujevac, Faculty of Agronomy in Cacak</p>
<p><b>Assessment of the relation between expression of learning outcomes for this qualification and NQF level descriptors:</b></p> <p>In the Criteria 4 (Competences of graduate students) for accreditation of study programmes LO are not specified as knowledge, skills, abilities and attitudes, but rather as combination of all three elements of competence<sup>1</sup>. The competencies are divided into general and subject-specific. Also, it seems that there is no common understanding or definition of competencies so in the document it is stated „competences i.e. skills”.</p> <p>Work competencies (work description) are not defined, instead the general statement is given that “Upon completion of studies, students are able to master (qualified) the research methods, procedures and processes such as: visual evaluation of animals, analysis and study of certain physiological parameters, study of needs in nutrients, assembling meals and balance diet for different species and categories, applying the selection procedures and methods for the evaluation of breeding value, planning and organization of growing technology, management of production processes, solving problems in production and designing technical and technological documentation”. Furthermore instead of working competencies list of economic entities where student can work is given, such as: agricultural work organizations, entrepreneurial organizations and private farms engaged in livestock production, consulting and professional services, scientific, research and development institutions, banks and insurance companies, and secondary education and the like.</p> <p>Since work competencies are not defined there is no evident link with stated competencies.</p>	<p><b>Assessment of gap between expression of learning outcomes for this qualification and NQF level descriptors:</b></p> <p>LO are not specified as knowledge, skills, abilities and attitudes, so identification of knowledge, skills, abilities and attitudes from the given statement is challenging. Statements are mixture of general and subject-specific competences, knowledge and skills, etc.</p> <p>From the formulation of the “competencies” LO can be provisionally extrapolated and assigned to knowledge, skills, abilities and attitudes based on the predominant feature.</p> <p>Comparison of given statements of “competencies” and NQF level descriptors cannot be done properly.</p>
<p>Level 6 descriptors NQF versus Identified Learning Outcomes</p>	

<sup>1</sup> Draft NQF in Serbia defines “Competence is an integrated set of knowledge, skills, abilities and attitudes that enable individuals to effectively carry out work activities, in line with the expected standard”.

NQF level 6 descriptor	Related LO Descriptors:	NQF level 6 descriptor	Related LO Descriptors:	NQF level 6 descriptor	Related LO Descriptors:
Knowledge and understanding		Skills		Abilities and attitudes (AA)	
Possesses academic or vocational knowledge of the theory, principles and processes including evaluation, critical understanding and application in the field of study and/or work	<ul style="list-style-type: none"> <li>• Thorough knowledge and understanding of disciplines in zoo-technical occupation and professional application of knowledge acquired;</li> <li>• Linking basic knowledge from different fields and its application</li> <li>• Developed learning skills and agility in knowledge usage which are essential for further continuation of studies at higher levels of education (master, specialist and doctoral studies), as well as in using the information and communication technologies in mastering the knowledge in corresponding area and monitoring and implementing occupational innovations</li> <li>• Environmental preservation</li> <li>• Economical use of natural resources in the Republic of Serbia in accordance with the principles of sustainable development</li> </ul>	<p>Solves complex problems in a field of study and/or work under unforeseen conditions.</p> <p>Applies skills of successful communication and interaction with others from different social groups.</p> <p>Uses equipment, instruments and devices relevant to a field of study and/or work.</p>	<ul style="list-style-type: none"> <li>• Developed need for using professional literature</li> <li>• Developed communication abilities and skills, as well as the co-operation with narrow social and international environment</li> <li>• Ability to transmit information, ideas, problems and solutions to both professional and general public</li> <li>• Conducting independent experiments, performing statistical analysis of obtained results, formulating and drawing conclusions</li> <li>• Proper writing and presenting of results</li> <li>• Production of safe food</li> <li>• In the field of Agriculture and Forestry, the production of plant and animal species as living organisms</li> </ul>	<p>Exhibits entrepreneurship in solving problems in unpredictable situations.</p> <p>Manages medium complex projects independently and with full liability.</p> <p>Applies occupational ethical standards.</p> <p>Organise, controls and trains others to work.</p> <p>Analyses and evaluates simple concepts, models and principles of the theory and practice by improving existing practices.</p> <p>Exhibits a positive attitude towards the importance of lifelong learning in personal and professional</p>	<ul style="list-style-type: none"> <li>• Ability to develop and defend arguments and to solve concrete problems within the field of study by using the scientific methods and procedures</li> <li>• Ability to gather and interpret relevant data in order to formulate judgments</li> <li>• Professional ethics</li> <li>• Production planning, organization and control</li> </ul>

				development.	
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#### **Approach used/methodological explanation:**

The LO are not given as knowledge, skills, abilities and attitudes, so in the column “related LO descriptors” statements from the Criteria 4 (Competences of graduate students) were inserted based on provisional assessment.

Presented distribution of competencies’ statements within columns is based on provisional assessment of predominant feature of statement, since knowledge and skill are given in the same statement. General competencies are listed separately as a statement that “Agricultural engineers, specialized in Zoo-technics, are competent and qualified to solve real practical problems in the field of modern livestock production, as well as to continue their training and education if they decide to do so. The competence primarily includes the development of critical and self-critical thinking and approach, capacity for analysis, synthesis and prediction of consequences and problem solving with a clear notion of the strengths and weaknesses of decisions and procedures, as well as the application of knowledge in practice. The outcome of the studying process is the formation of specialists with academic education who possess significantly broadened and deepened knowledge, compared to the knowledge acquired in secondary school, as well as the knowledge necessary for understanding the scientific basis of the field of agricultural and livestock production”. Also, there is no clear understanding or definition of competence because in the text it is stated that “Upon graduation, students at this level of education have acquired the following competences i.e. skills”.

#### **Sources:**

University of Kragujevac, Faculty of Agronomy in Cacak, <http://www.afc.kg.ac.rs>

<b>Title of qualification:</b> BACHELOR WITH HONOURS AGRICULTURAL ENGINEER <b>Qualification code:</b> N/A <b>Indicated NQF level:</b> 6  <b>This qualification is based on learning outcomes:</b> YES but not KSAA			<b>Document used for this comparison</b> <b>Type:</b> Documentation for accreditation of study program of basic academic studies, Study program: Agricultural engineering, (240 ECTS) <b>Date of development:</b> 2008/2013 <b>Institution – Developer:</b> Belgrade university, Faculty of agriculture		
<b>Assessment of the relation between expression of learning outcomes for this qualification and NQF level descriptors:</b> In the Criteria 4 (Competences of graduate students) for accreditation of study programmes LO are not specified as knowledge, skills, abilities and attitudes, but rather as combination of all three elements of competence <sup>2</sup> . The competencies are divided into general and subject-specific. Some competencies are repeating in the text. Also under Criteria 2 (The purpose of the study program) some LO (abilities) are listed, but they are not included into table. Work competencies (work description) are not defined. Instead of working competencies list of economic entities where student can work is given “Experts of this profile can be employed in enterprises that deal with: the production of agricultural techniques; production and processing of animal food, then in agricultural companies and other institutions, agricultural stations, departments of agriculture, producer associations, advisory services and public administration; inspection, trade in agricultural techniques and agricultural products, education (secondary education), the preservation and protection of agricultural land from pollution, science and technological development”. Since work competencies are not defined there is no evident link with stated competencies.			<b>Assessment of gap between expression of learning outcomes for this qualification and NQF level descriptors:</b> LO are not specified as knowledge, skills, abilities and attitudes, so identification of knowledge, skills, abilities and attitudes from the given statement is challenging. Statements are mixture of general and subject-specific competences, knowledge and skills, etc. Some competencies are repeating through text, with just little modification. From the formulation of the “competencies” LO can be provisionally extrapolated and assigned to knowledge, skills, abilities and attitudes based on the predominant feature. Comparison of given statements of “competencies” and NQF level descriptors cannot be done properly.		
Level 6 descriptors NQF versus Identified Learning Outcomes					
NQF level 6 descriptor	Related LO Descriptors:	NQF level 6 descriptor	Related LO Descriptors:	NQF level 6 descriptor	Related LO Descriptors:
Knowledge and understanding		Skills		Abilities and attitudes (AA)	

<sup>2</sup> Draft NQF in Serbia defines “Competence is an integrated set of knowledge, skills, abilities and attitudes that enable individuals to effectively carry out work activities, in line with the expected standard”.

<p>Possesses academic or vocational knowledge of the theory, principles and processes including evaluation, critical understanding and application in the field of study and/or work</p>	<ul style="list-style-type: none"> <li>• Basic knowledge of mathematics, information technology and statistical disciplines; the basic knowledge of the field of engineering disciplines;</li> <li>• Basic knowledge of agronomic disciplines;</li> <li>• Basic knowledge in the field of organizational and economic disciplines</li> <li>• Knowledge of agricultural technology: machines, devices and systems in the field of farming, fruit-growing and viticulture, livestock production, transportation and storage</li> <li>• Knowledge of the capabilities of aggregating actuating and access machines for the purpose of rational use of aggregates</li> <li>• Knowledge of agricultural engineering in order to adapt - set to perform certain technological operations</li> <li>• Knowledge and assessment of the status of machines and equipment in order to prevent failures and deadlocks and ensure timely and proper maintenance</li> <li>• Knowledge of agricultural production facilities from the standpoint of rational</li> </ul>	<p>Solves complex problems in a field of study and/or work under unforeseen conditions.</p> <p>Applies skills of successful communication and interaction with others from different social groups.</p> <p>Uses equipment, instruments and devices relevant to a field of study and/or work.</p>	<ul style="list-style-type: none"> <li>• Select the machines and assemble aggregates for the execution of soil tillage operations to warehousing and storing of agricultural products</li> <li>• Implement the organizational and technical procedures and measures for rational and optimal use of agricultural technics</li> <li>• Successfully work in direct production in agriculture: farming, fruit-production and viticulture, cattle breeding, and in the contact areas i.e. areas of production, which immediately follow one another</li> <li>• Control and adjust the machines and equipment before and during the exploitation</li> <li>• Take measures for the proper handling, maintenance and storage of agricultural technology</li> <li>• Use technical literature</li> <li>• Use literature and other information sources</li> <li>• Use methods of collecting data and information</li> <li>• Rank and select the data</li> <li>• Master the methods of communication in a form adapted to the vocational discipline</li> </ul>	<p>Exhibits entrepreneurship in solving problems in unpredictable situations.</p> <p>Manages medium complex projects independently and with full liability.</p> <p>Applies occupational ethical standards.</p> <p>Organise, controls and trains others to work.</p> <p>Analyses and evaluates simple concepts, models and principles of the theory and practice by improving existing practices.</p> <p>Exhibits a positive attitude towards the importance of lifelong learning in personal and professional development.</p>	<ul style="list-style-type: none"> <li>• Apply standards and regulations of occupational safety and health</li> <li>• Teamwork (master the methods of teamwork)</li> <li>• Transmit the knowledge and experience, design and develop the technical and technological documentation, work in factories for animal feed production and related industries</li> <li>• Evaluate themselves and others appropriately</li> <li>• Demonstrate autonomy and responsibility for their own learning</li> <li>• Knowledge and professional skills in the field of agricultural technology and are able to apply them in successful problems solving in a partly new or unfamiliar professional environment</li> <li>• Knowledge and skills needed for teamwork</li> <li>• Effectively monitor and adopt</li> </ul>
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	construction and exploitation <ul style="list-style-type: none"> <li>• Knowledge of production and the rational use of all forms of energy in agriculture</li> <li>• Knowledge of organizing procurements and sales of agricultural technology</li> </ul>		<ul style="list-style-type: none"> <li>• Write a report on the practical procedures in a clear and concise manner</li> <li>• Integration of information as well as the reasoning and conclusion on the basis of the same</li> <li>• Able to clearly convey the knowledge and conclusions to the expert and general public</li> </ul>		innovations in the field agricultural engineering
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#### Approach used/methodological explanation:

The LO are not given as knowledge, skills, abilities and attitudes, so in the column “related LO descriptors” statements from the Criteria 4 (Competences of graduate students) were inserted based on provisional assessment. In the Criteria 2 (The purpose of the study program) some abilities are listed but are not included in the table. Abilities listed under Criteria 2:

By mastering the study programme, students acquire the following general competences:

- the ability of analysis, synthesis and prediction of solutions and consequences in the field of agricultural engineering;
- the ability of mastering the research methods, procedures and processes in the field of agricultural engineering;
- the development of critical and self-critical thinking and approach in the field of agricultural engineering;
- the ability of applying the knowledge of agricultural engineering in practice;
- the development of communication abilities and agility, as well as the co-operation with the specific social and international environment;
- the awareness of professional ethics in the field of agricultural engineering.

By mastering the study programme, students acquire the following subject-specific competences in the field of agricultural engineering, in the biotechnical sciences and in the technical and technological sciences study field:

- the thorough knowledge and understanding of the discipline;
- the ability of solving concrete problems in the area of agricultural engineering by using scientific methods and procedures;
- the ability of connecting basic knowledge of agricultural engineering and its application;
- the ability of monitoring and applying occupational innovations in the field of agricultural engineering;
- the development of skills and agility in the use of knowledge of the relevant field of agricultural engineering;
- the ability of using information and communication technologies in mastering the knowledge of relevant fields of agricultural engineering.

Presented distribution of competencies’ statements within columns is based on provisional assessment of predominant feature of statement, since knowledge and skill are given in the same statement.

#### Sources:





<b>Title of qualification:</b> MASTER ENGINEER OF AGRICULTURE <b>Qualification code:</b> N/A <b>Indicated NQF level:</b> 7  <b>This qualification is based on learning outcomes:</b> YES but not KSAA			<b>Document used for this comparison</b> <b>Type:</b> DOCUMENTATION FOR ACCREDITATION OF THE STUDY PROGRAMME, AGRICULTURE, MASTER ACADEMIC STUDIES <b>Date of development:</b> 2008/2013 <b>Institution – Developer:</b> Belgrade university, Faculty of agriculture		
<b>Assessment of the relation between expression of learning outcomes for this qualification and NQF level descriptors:</b> In the Criteria 4 (Competences of graduate students) for accreditation of study programmes LO are not specified as knowledge, skills, abilities and attitudes, but rather as combination of all three elements of competence <sup>3</sup> . The competencies are divided into general and subject-specific, and separately are listed LO. Work competencies (work description) are not defined. Under Criteria 2 it is stated that “After graduating this program, formed experts are capable of development and application of modern technologies and scientific achievements in the field of farming and vegetable growing, fruit growing and viticulture, horticulture, land reclamation, agricultural techniques, organic farming or zoo-technic depending on the selected module”. Since work competencies are not defined there is no evident link with stated competencies.			<b>Assessment of gap between expression of learning outcomes for this qualification and NQF level descriptors:</b> LO are not specified as knowledge, skills, abilities and attitudes, so identification of knowledge, skills, abilities and attitudes from the given statement of competencies is challenging. Statements are mixture of general and subject-specific competences, with knowledge and skills in same sentence, etc. Competence’ statement are rather generally formulated with little qualification specific elements. From the formulation of the “competencies” LO can be provisionally extrapolated and assigned to knowledge, skills, abilities and attitudes based on the predominant feature. Comparison of given statements of “competencies” and NQF level descriptors cannot be done properly.		
Level 7 descriptors NQF versus Identified Learning Outcomes					
NQF level 7 descriptor	Related LO Descriptors:	NQF level 7 descriptor	Related LO Descriptors:	NQF level 7 descriptor	Related LO Descriptors:
Knowledge and understanding		Skills		Abilities and attitudes (AA)	
Possesses advanced academic or specialized vocational	<ul style="list-style-type: none"><li>• The analysis, synthesis and prediction of solutions and consequences</li><li>• The mastery of research methods, procedures and</li></ul>	Solves complex problems in an innovative way that contributes to developments in a	<ul style="list-style-type: none"><li>• The development of communication abilities and skills, as well as co-operation with specific social and international</li></ul>	Acts entrepreneurially and assumes managerial positions.	<ul style="list-style-type: none"><li>• The professional ethics</li><li>• Monitoring and application of occupational</li></ul>

<sup>3</sup> Draft NQF in Serbia defines “Competence is an integrated set of knowledge, skills, abilities and attitudes that enable individuals to effectively carry out work activities, in line with the expected standard”.

knowledge of the theory, principles and processes including evaluation, critical understanding and application in the field of study and/or work.	<p>processes</p> <ul style="list-style-type: none"> <li>• The development of critical and self-critical thinking and approach</li> <li>• The application of knowledge in practice</li> <li>• The thorough knowledge and understanding of the discipline of the chosen area (farming and vegetable growing, fruit growing and viticulture, horticulture, soil melioration, agricultural techniques, organic farming or zoo-technic)</li> <li>• The production planning, organization and control</li> <li>• Connecting the basic knowledge from different fields and its application</li> <li>• Demonstrate the knowledge, skills and understanding in the field of biotechnical sciences, which complement the knowledge gained at the undergraduate level and provide the basis for the development of critical thinking and application of knowledge and skills</li> <li>• Demonstrate the knowledge of and the skills for the preservation of environment</li> <li>• Demonstrate the knowledge of and the skills for the economical use of</li> </ul>	<p>field of study and/or work.</p> <p>Manages and maintains successful communication, interaction and collaboration with others from different social groups.</p> <p>Applies complex methods, instruments and devices relevant for a field of study and/or work.</p>	<p>environment</p> <ul style="list-style-type: none"> <li>• Solving specific problems by using scientific methods and procedures</li> <li>• The development of skills and agility in the use of knowledge of the relevant field</li> <li>• The use of information and communication technologies in mastering the knowledge of relevant field</li> <li>• Properly writing and presenting the results</li> <li>• Apply the knowledge and skills in solving problems in a new or unfamiliar environment in wider or multidisciplinary areas within the biotechnology field of technical, technological, educational and scientific fields of study</li> <li>• Integrate knowledge and skills, solve complex problems and reason based on the information available that includes reflections on social and ethical responsibilities related to the application of their knowledge and judgments</li> <li>• To transfer the knowledge and reasoning clearly and unambiguously to the professional and general public</li> </ul>	<p>Manages the most complex projects independently and with full liability.</p> <p>Plans and carries out scientific and/or applied research.</p> <p>Controls the work activities and evaluates the results of others in order to improve existing practices.</p>	<p>innovations</p> <ul style="list-style-type: none"> <li>• The independent experimentation, statistical analysis and interpretation of the results, the formulation and adoption of conclusions</li> <li>• To continue their studies in a way that shall be independently chosen</li> </ul>
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	<p>natural resources of our country, in accordance with the principles of sustainable development</p> <ul style="list-style-type: none"> <li>• Demonstrate the knowledge of and the skills for the safe food production</li> <li>• Demonstrate the knowledge of and the skills for the cultivation and production of plant and animal species as living organisms</li> </ul>				
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**Approach used/methodological explanation:**

The LO are not given as knowledge, skills, abilities and attitudes, so in the column “related LO descriptors” statements from the Criteria 4 (Competences of graduate students) were inserted. Presented distribution of competencies’ statements within columns is based on provisional assessment of predominant feature of statement, since knowledge and skill are given in the same statement.

**Sources:**

BELGRADE UNIVERSITY, FACULTY OF AGRICULTURE, [www.agrif.bg.ac.rs](http://www.agrif.bg.ac.rs)

<b>Title of qualification:</b> SPECIALIST AGRICULTURAL ENGINEER <b>Qualification code:</b> N/A <b>Indicated NQF level:</b> 7  <b>This qualification is based on learning outcomes:</b> YES but not KSAA			<b><u>Document used for this comparison</u></b> <b>Type:</b> DOCUMENTATION FOR ACCREDITATION OF STUDY PROGRAMMES: Specialist academic studies: Zoo-technique <b>Date of development:</b> 2008 <b>Institution – Developer:</b> Belgrade university, Faculty of agriculture		
<b>Assessment of the relation between expression of learning outcomes for this qualification and NQF level descriptors:</b> In the Criteria 4 (Competences of graduate students) for accreditation of study programmes LO are not specified as knowledge, skills, abilities and attitudes, but rather as combination of all three elements of competence <sup>4</sup> . The competencies are divided into general and subject-specific, and separately are listed LO. Work competencies (work description) are not defined. Instead of working competencies list of economic entities where student can work is given, such as: agricultural work organizations, entrepreneurial organizations and private farms engaged in livestock production, consulting and professional services, scientific, research and development institutions, banks and insurance companies, and secondary education and the like. Since work competencies are not defined there is no evident link with stated competencies.			<b>Assessment of gap between expression of learning outcomes for this qualification and NQF level descriptors:</b> LO are not specified as knowledge, skills, abilities and attitudes, so identification of knowledge, skills, abilities and attitudes from the given statement of competencies is challenging. Statements are mixture of general and subject-specific competences, with knowledge and skills in same sentence, etc. There is no structure in presenting competencies and some are repeating through text. From the formulation of the “competencies” LO can be provisionally extrapolated and assigned to knowledge, skills, abilities and attitudes based on the predominant feature. Comparison of given statements of “competencies” and NQF level descriptors cannot be done properly.		
Level 7 descriptors NQF versus Identified Learning Outcomes					
NQF level 7 descriptor	Related LO Descriptors:	NQF level 7 descriptor	Related LO Descriptors:	NQF level 7 descriptor	Related LO Descriptors:
Knowledge and understanding		Skills		Abilities and attitudes (AA)	
Possesses advanced academic or specialized vocational knowledge of the theory,	<ul style="list-style-type: none"><li>• Applicable knowledge and skills in livestock</li><li>• Follow modern trends and achievements of biotechnology in livestock production in the world</li><li>• Demonstrate deepened</li></ul>	Solves complex problems in an innovative way that contributes to developments in a field of study and/or work.	<ul style="list-style-type: none"><li>• The use of literature and knowledge transfer</li><li>• Independently solve practical and theoretical problems in livestock</li><li>• Knowledge to communicated</li></ul>	Acts entrepreneurially and assumes managerial positions.  Manages the most	<ul style="list-style-type: none"><li>• Organize development research</li><li>• Effectively monitor and adopt innovations and research results in</li></ul>

<sup>4</sup> Draft NQF in Serbia defines “Competence is an integrated set of knowledge, skills, abilities and attitudes that enable individuals to effectively carry out work activities, in line with the expected standard”.

principles and processes including evaluation, critical understanding and application in the field of study and/or work.	<p>knowledge, understanding and skills in selected narrow scientific fields of specialization in zoo-technics, based on the knowledge and skills acquired in master studies; in the morphological and physiological characteristics of animals and their metabolic processes; in the principle of trait inheritance; in selection, animal nutrition, technology and breeding systems; in reproduction, breeding conditions, welfare and protection of animal health; in productivity control and requirements for safe food production; in production planning and the environmental aspects of production and legislation in the field of animal husbandry</p> <ul style="list-style-type: none"> <li>• Analysis and study of certain physiological parameters</li> <li>• Different ways of animal feed production</li> <li>• Study (calculate) of needs in nutrients</li> <li>• Knowledge of preventive and primary health care practices of domestic and farmed animals</li> <li>• Designing technical and</li> </ul>	<p>Manages and maintains successful communication, interaction and collaboration with others from different social groups.</p> <p>Applies complex methods, instruments and devices relevant for a field of study and/or work.</p>	<p>appropriately research results</p> <ul style="list-style-type: none"> <li>• Collect and classify ideas and information within the set, defined and standard format; process the data, analyze and present the results; assess and evaluate the data reliability with the use of defined methods or instructions and apply the principles and methods for solving complex zoo-technical issues</li> <li>• Apply deepened knowledge, understanding and skills acquired during the specialist studies to successfully solving of complex problems in a new or unfamiliar environment, in specific scientific fields of zoo-technical studies</li> <li>• Link the acquired knowledge and solve complex problems in zoo-technics; reason and, based on information available, draw conclusions that include reflections on social and ethical responsibilities related to the application of their knowledge and judgments</li> <li>• Visual evaluation of animals</li> <li>• Assembling meals and balance diet for different</li> </ul>	<p>complex projects independently and with full liability.</p> <p>Plans and carries out scientific and/or applied research.</p> <p>Controls the work activities and evaluates the results of others in order to improve existing practices.</p>	<p>the field of zoo-technic specialization and communicate their findings, knowledge and concluding procedure to the professional and general public in a clear and unambiguous manner</p> <ul style="list-style-type: none"> <li>• Management of production processes and solving problems in the production of milk, meat, eggs, wool, leather and furs</li> <li>• Mastered the methods of individual and team work</li> <li>• Evaluates himself and others in an appropriate manner</li> <li>• Demonstrates independence and responsibility in their own work</li> </ul>
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	technological documentation		<p>species and categories</p> <ul style="list-style-type: none"> <li>• Applying the selection procedures and methods for the evaluation of breeding value</li> <li>• Planning and organization of growing technology of domestic and wild animals, fish and bees</li> <li>• Introduction and application of new modern biotechnological methods of reproduction and cultivation of animals</li> <li>• Collects and sorts ideas and information within the set, defined and standard format</li> <li>• Processing data, analysing and presenting results by applying appropriate principles and methods</li> <li>• Assesses and evaluate data reliability with the use of defined methods or instructions</li> <li>• Applies the principles and methods for accurately and carefully solving particular professional issues</li> <li>• Uses literature and other information sources</li> <li>• Uses methods for collecting and processing data and information</li> <li>• Rank and select data</li> <li>• Extends way of communicating in a form adapted to professional</li> </ul>		
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			discipline <ul style="list-style-type: none"> <li>Writes and presents reports about the practical and technical procedures in a clear and concise manner</li> </ul>		
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#### Approach used/methodological explanation:

The LO are not given as knowledge, skills, abilities and attitudes, so in the column “related LO descriptors” statements from the Criteria 4 (Competences of graduate students) were inserted. The method of presenting competencies in original document (Documentation for accreditation of study programmes) is not structured, different wording is used and some statements are repeating through text with small variation.

Presented distribution of competencies’ statements within columns is based on provisional assessment of predominant feature of statement, since knowledge and skill are given in the same statement.

#### Sources:

BELGRADE UNIVERSITY, FACULTY OF AGRICULTURE, [www.agrif.bg.ac.rs](http://www.agrif.bg.ac.rs)



<b>Title of qualification:</b> DOCTOR OF SCIENCE - BIOTECHNICAL SCIENCES <b>Qualification code:</b> N/A <b>Indicated NQF level:</b> 8  <b>This qualification is based on learning outcomes:</b> YES but not KSAA			<b>Document used for this comparison</b> <b>Type:</b> DOCUMENTATION FOR ACCREDITATION OF THE STUDY PROGRAMME, AGRICULTURE, DOCTORAL STUDIES <b>Date of development:</b> 2006/2007 <b>Institution – Developer:</b> Belgrade university, Faculty of agriculture		
<b>Assessment of the relation between expression of learning outcomes for this qualification and NQF level descriptors:</b> In the Criteria 4 (Competences of graduate students) for accreditation of study programmes LO are not specified as knowledge, skills, abilities and attitudes, but rather as combination of all three elements of competence <sup>5</sup> . The competencies are divided into general and subject-specific, but they are all formulated as abilities. The formulation of competencies are general, without qualification specific elements, so they can apply to all 8 (PhD) level qualifications. Work competencies (work description) are not defined. Since work competencies are not defined there is no evident link with stated competencies.			<b>Assessment of gap between expression of learning outcomes for this qualification and NQF level descriptors:</b> LO are not specified as knowledge, skills, abilities and attitudes, so identification of knowledge, skills, abilities and attitudes from the given statement of competencies is challenging. Statements are mixture of general and subject-specific competencies, with knowledge and skills in same sentence, etc. From the formulation of the “competencies” LO can be provisionally extrapolated and assigned to knowledge, skills, abilities and attitudes based on the predominant feature. Comparison of given statements of “competencies” and NQF level descriptors cannot be done properly.		
Level 8 descriptors NQF versus Identified Learning Outcomes					
NQF level 8 descriptor	Related LO Descriptors:	NQF level 8 descriptor	Related LO Descriptors:	NQF level 8 descriptor	Related LO Descriptors:
Knowledge and understanding		Skills		Abilities and attitudes (AA)	
Possesses superb theoretical and practical knowledge needed for critical analysis and research in fundamental and applied	<ul style="list-style-type: none"><li>• The ability of analysis, synthesis and prediction of solutions and consequences of concrete problems in a specific scientific field</li><li>• The ability to dispose of the fundamental knowledge and understanding of</li></ul>	Applies advanced and specialized skills and techniques required to address critical problems in research and for expanding and redefining existing knowledge or work field.	<ul style="list-style-type: none"><li>• The mastery of skills and modern research methods in the technical and technological field</li><li>• The ability to use information and communication technologies when mastering the knowledge in</li></ul>	Evaluates contemporary results and achievements independently in order to improve the existing and create new models, concepts, ideas and theories.	<ul style="list-style-type: none"><li>• The ability of monitoring and applying vocational innovations</li><li>• The ability to engage in national and international scientific research projects</li></ul>

<sup>5</sup> Draft NQF in Serbia defines “Competence is an integrated set of knowledge, skills, abilities and attitudes that enable individuals to effectively carry out work activities, in line with the expected standard”.

scientific areas with the aim of broadening and redefining existing knowledge, science or work field.	<p>science and vocation in the technical and technological field</p> <ul style="list-style-type: none"> <li>The ability to link knowledge from different fields, acquired at earlier levels of education, in order to develop new technologies</li> </ul>	<p>Applies communication skills in order to explain and critique the theory, methodology and conclusions, as well as the presentation of research results in relation to international standards and the scientific community.</p> <p>Develops new tools, instruments, and devices relevant for a field of science and work.</p>	<p>relevant fields</p> <ul style="list-style-type: none"> <li>The ability of conducting independent research of theoretical and practical problems in order to obtain new or improved solutions and implement them</li> <li>The ability to design their own experiments or repeat the measuring procedure that has already been defined and described in the literature, to predict and characterize the expected measurements, to carry out the measurement acquisitions, to perform their own statistical and methodological analysis and pass the final judgment on the credibility, relevance and significance of the undertaken measurement action</li> <li>The ability of teamwork and professional communication in order to achieve the scientific and vocational improvement</li> <li>The ability to communicate and collaborate with the specific social and international environment</li> <li>The competence to communicate the results of scientific research at scientific conferences, publish in scientific journals, or display through</li> </ul>	<p>Exhibits innovativeness, research and professional integrity and commitment to the development of new ideas and/or processes that are at the centre of work or science contexts, through the principle of evaluation of their own work and achievements.</p> <p>Designs, implements and analyses the research that represents a significant and original contribution to the general knowledge and/or professional practice.</p> <p>Manages interdisciplinary and multidisciplinary projects. Is capable of independent initiating of national and international cooperation in science and</p>	<ul style="list-style-type: none"> <li>The ability of critical thinking, creative and independent actions</li> <li>The knowledge of and the respect for the principles of ethical codes of good scientific practice</li> </ul>
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			patents and new technical solutions <ul style="list-style-type: none"> <li>• The ability to use their own original research, especially the research results obtained while working on the doctoral dissertation, and give a personal contribution to the expansion of boundaries of knowledge in the specific scientific field</li> </ul>	development.	
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#### Approach used/methodological explanation:

The LO are not given as knowledge, skills, abilities and attitudes, so in the column “related LO descriptors” statements from the Criteria 4 (Competences of graduate students) were inserted. Presented distribution of competencies’ statements within columns is based on provisional assessment of predominant feature of statement, since knowledge, skill and abilities are given in the same statement. All competencies are formulated as abilities that furthered complicate assignment of individual statement under KSAA.

#### Sources:

BELGRADE UNIVERSITY, FACULTY OF AGRICULTURE, [www.agrif.bg.ac.rs](http://www.agrif.bg.ac.rs)

<b>Title of qualification:</b> PROFESSIONAL AGRICULTURAL ENGINEER <b>Qualification code:</b> N/A <b>Indicated NQF level:</b> 6  <b>This qualification is based on learning outcomes:</b> YES but not KSAA			<b><u>Document used for this comparison</u></b> <b>Type:</b> Documentation for accreditation of study programme, Basic professional studies, FARMING AND VEGETCULTURE (180 ECTS) <b>Date of development:</b> 2007 <b>Institution – Developer:</b> Higher Agricultural School of Professional Studies Sabac		
<b>Assessment of the relation between expression of learning outcomes for this qualification and NQF level descriptors:</b> In the Criteria 4 (Competences of graduate students) for accreditation of study programmes LO are not specified as knowledge, skills, abilities and attitudes, but rather as combination of all three elements of competence <sup>6</sup> . The competencies are divided into general and subject-specific. Work competencies (work description) are not defined. Since work competencies are not defined there is no evident link with stated competencies.			<b>Assessment of gap between expression of learning outcomes for this qualification and NQF level descriptors:</b> LO are not specified as knowledge, skills, abilities and attitudes, so identification of knowledge, skills, abilities and attitudes from the given statement is challenging. Statements are mixture of general and subject-specific competences, with knowledge and skills in the same statement, etc. From the formulation of the “competencies” LO can be provisionally extrapolated and assigned to knowledge, skills, abilities and attitudes based on its predominant feature. Comparison of given statements of “competencies” and NQF level descriptors cannot be done properly.		
Level 6 descriptors NQF versus Identified Learning Outcomes					
NQF level 6 descriptor	Related LO Descriptors:	NQF level 6 descriptor	Related LO Descriptors:	NQF level 6 descriptor	Related LO Descriptors:
Knowledge and understanding		Skills		Abilities and attitudes (AA)	
Possesses academic or vocational knowledge of the theory, principles and processes including evaluation,	<ul style="list-style-type: none"><li>Analyze data according to the instruction by applying appropriate principles and methods of classification</li><li>Assess and evaluate data reliability by using standard methods or instructions</li><li>Knowledge of morphological and</li></ul>	<p>Solves complex problems in a field of study and/or work under unforeseen conditions.</p> <p>Applies skills of successful communication and</p>	<ul style="list-style-type: none"><li>Collect and classify various ideas and information</li><li>Apply the principles and methods accurately and carefully when solving certain professional issues</li><li>Use literature and other information sources</li><li>Use methods of collecting</li></ul>	<p>Exhibits entrepreneurship in solving problems in unpredictable situations.</p> <p>Manages medium complex projects independently and</p>	<ul style="list-style-type: none"><li>Master the methods of teamwork</li><li>Evaluate themselves and others appropriately</li><li>Demonstrate autonomy and responsibility for their own learning</li></ul>

<sup>6</sup> Draft NQF in Serbia defines “Competence is an integrated set of knowledge, skills, abilities and attitudes that enable individuals to effectively carry out work activities, in line with the expected standard”.

critical understanding and application in the field of study and/or work	<p>physiological characteristics of field plants (crops and vegetables)</p> <ul style="list-style-type: none"> <li>• Knowledge of edaphic and agro-ecological growing conditions</li> <li>• Knowledge of growing technologies</li> <li>• Knowledge of species, cultivars and hybrids</li> <li>• Knowledge of appliances of agricultural technology</li> <li>• Knowledge of the process of production of seed and planting materials</li> <li>• Knowledge of seed and fruits quality control procedures</li> <li>• Knowledge and skills in the environmental protection and economical use of resources in the Republic of Serbia in accordance with the principles of sustainable development</li> </ul>	<p>interaction with others from different social groups.</p> <p>Uses equipment, instruments and devices relevant to a field of study and/or work.</p>	<p>data and information</p> <ul style="list-style-type: none"> <li>• Rank and select the data</li> <li>• Master the methods of communication in a form adapted to the vocational discipline</li> <li>• Write a report on the practical procedures in a clear and concise manner</li> <li>• Design and development of technical and technological documentation necessary for the implementation of crop production</li> <li>• Knowledge and skills in the safe production of food and plant species as living organisms</li> <li>• (Knowledge of) organization and management in crop and vegetable production</li> <li>• (Knowledge of) applying the information technology in agriculture</li> </ul>	<p>with full liability.</p> <p>Applies occupational ethical standards.</p> <p>Organise, controls and trains others to work.</p> <p>Analyses and evaluates simple concepts, models and principles of the theory and practice by improving existing practices.</p> <p>Exhibits a positive attitude towards the importance of lifelong learning in personal and professional development.</p>	<ul style="list-style-type: none"> <li>• Planning and organizing the technology of growing field and vegetable crops</li> <li>• Management of production processes</li> </ul>
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#### Approach used/methodological explanation:

The LO are not specified in terms of knowledge, skills, abilities and attitudes, so in the column “related LO descriptors” statements from the Criteria 4 (Competences of graduate students) were inserted. Presented distribution of competencies’ statements within columns is based on provisional assessment of predominant feature of statement, since knowledge and skill are given in the same statement. Original formulation of competencies from the document is stated in the columns.

#### Sources:

Higher Agricultural School of Professional Studies Sabac, [www.vpssa.edu.rs](http://www.vpssa.edu.rs)

<b>Title of qualification:</b> SPECIALIST PROFESSIONAL AGRICULTURAL ENGINEER <b>Qualification code:</b> N/A <b>Indicated NQF level:</b> 6  <b>This qualification is based on learning outcomes:</b> YES but not KSAA	<b>Document used for this comparison</b> <b>Type:</b> Documentation for accreditation of study programme, Professional specialisation studies (60 ECTS) <b>Date of development:</b> 2010 <b>Institution – Developer:</b> Higher Agricultural School of Professional Studies Sabac				
<b>Assessment of the relation between expression of learning outcomes for this qualification and NQF level descriptors:</b> In the Criteria 4 (Competences of graduate students) for accreditation of study programmes LO are not specified as knowledge, skills, abilities and attitudes, but rather as combination of all three elements of competence <sup>7</sup> . The competencies are divided into general and subject-specific. The formulation of competencies are general, without qualification specific elements, so they can apply to all qualification on the same level. Work competencies (work description) are not defined. Since work competencies are not defined there is no evident link with stated competencies.	<b>Assessment of gap between expression of learning outcomes for this qualification and NQF level descriptors:</b> LO are not specified as knowledge, skills, abilities and attitudes, so identification of knowledge, skills, abilities and attitudes from the given statement is challenging. Statements are mixture of general and subject-specific competences, knowledge and skills, etc. From the formulation of the “competencies” LO can be provisionally extrapolated and assigned to knowledge, skills, abilities and attitudes based on its predominant feature. Comparison of given statements of “competencies” and NQF level descriptors cannot be done properly.				
Level 6 descriptors NQF versus Identified Learning Outcomes					
NQF level 6 descriptor	Related LO Descriptors:	NQF level 6 descriptor	Related LO Descriptors:	NQF level 6 descriptor	Related LO Descriptors:
Knowledge and understanding		Skills		Abilities and attitudes (AA)	
Possesses academic or vocational knowledge of the theory, principles and processes including evaluation, critical	<ul style="list-style-type: none"><li>Analyzing data according to instructions with the application of appropriate principles and methods and evaluating their reliability</li><li>Thorough cognition and understanding of basic occupational knowledge (agro-ecology and</li></ul>	<p>Solves complex problems in a field of study and/or work under unforeseen conditions.</p> <p>Applies skills of successful communication and interaction with</p>	<ul style="list-style-type: none"><li>Collecting and classifying various ideas and information</li><li>Applying the principles and methods in order to accurately and carefully solve particular professional issues</li><li>Mastering methods of teamwork, using literature</li></ul>	<p>Exhibits entrepreneurship in solving problems in unpredictable situations.</p> <p>Manages medium complex projects independently and with full liability.</p>	<ul style="list-style-type: none"><li>Developing critical and self-critical judgement</li><li>Monitoring and applying occupational innovations</li></ul>

<sup>7</sup> Draft NQF in Serbia defines “Competence is an integrated set of knowledge, skills, abilities and attitudes that enable individuals to effectively carry out work activities, in line with the expected standard”.

understanding and application in the field of study and/or work	<p>environmental protection, the role and importance of microorganisms in the soil, application of machinery, irrigation and protection in plant production - crop production, vegetable growing, fruit growing and viticulture, and the application of a variety of other agro-technical measures)</p> <ul style="list-style-type: none"> <li>• Linking basic knowledge in different fields and its application</li> </ul>	<p>others from different social groups.</p> <p>Uses equipment, instruments and devices relevant to a field of study and/or work.</p>	<p>and other information sources, self-evaluating and evaluating others, using methods of collecting data and information, ranking and selecting available data, demonstrating independence and responsibility, mastering different methods of communication adapted to professional discipline and writing reports on practical procedures</p> <ul style="list-style-type: none"> <li>• Solving specific problems with the use of scientific methods and procedures</li> <li>• Developing skills and abilities in the use of knowledge in relevant fields</li> <li>• Usage of information and communication technologies in mastering the knowledge in relevant fields</li> </ul>	<p>Applies occupational ethical standards.</p> <p>Organise, controls and trains others to work.</p> <p>Analyses and evaluates simple concepts, models and principles of the theory and practice by improving existing practices.</p> <p>Exhibits a positive attitude towards the importance of lifelong learning in personal and professional development.</p>	
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#### Approach used/methodological explanation:

The LO are not specified in terms of knowledge, skills, abilities and attitudes, so in the column “related LO descriptors” statements from the Criteria 4 (Competences of graduate students) were inserted. Presented distribution of competencies’ statements within columns is based on provisional assessment of predominant feature of statement, since knowledge and skill are given in the same statement. Original formulation of competencies form the document is stated in the columns.

#### Sources:

Higher Agricultural School of Professional Studies Sabac, [www.vpssa.edu.rs](http://www.vpssa.edu.rs)



<b>Title of qualification:</b> ORGANIC PRODUCTION, DRYING AND STORING OF MEDICAL HERBS (MARIGOLD AND ANISE) <b>Qualification code:</b> N/A <b>Indicated NQF level:</b> 2 <b>This qualification is based on learning outcomes:</b> Yes			<b><u>Document used for this comparison</u></b> <b>Type:</b> Training programme, Education Gazette – 02/09 <b>Date of development:</b> 2009 <b>Institution – Developer:</b> CARDS Programme. Approved by the IIE and adopted by the MoESTD		
<b>Assessment of the relation between expression of learning outcomes for this qualification and NQF level descriptors:</b> LO are defined in the Training programme, but are named “programme outcomes”. Level of qualification is indicated in Nomenclature code as well as a qualification sector. “Programme outcomes” are formulated as LO but are not classified/sort out as Knowledge, Skills and Abilities and attitudes. Work competencies (work description) are defined but direct link between LO and work competencies is not demonstrated. Following work competencies are defined for this qualification: <ul style="list-style-type: none"><li>• The performance of agro-technical measures for growing marigold and anise;</li><li>• Production of marigold and anise based on organic principles;</li><li>• Harvesting;</li><li>• Drying and storing of marigold and anise.</li></ul> LO are in line with descriptors for the NQF level 2.			<b>Assessment of gap between expression of learning outcomes for this qualification and NQF level descriptors:</b> Abilities and attitudes are not defined.		
Level 2 descriptors NQF versus Identified Learning Outcomes					
NQF level 2 descriptor	Related LO Descriptors:	NQF level 2 descriptor	Related LO Descriptors:	NQF level 2 descriptor	Related LO Descriptors:
Knowledge and understanding		Skills		Abilities and attitudes (AA)	



<p>Possesses general and vocational <u>knowledge of facts and basic principles</u> necessary for performing work and/or for further learning.</p>	<ul style="list-style-type: none"> <li>• Indicate the morphological and physiological characteristics of marigold and anise;</li> <li>• Differ plant requirements according to vegetation factors;</li> <li>• Estimate the time for performance of agro-technical measures;</li> <li>• Define soil characteristics;</li> <li>• Evaluate and select the seed based on the evaluation of seed quality;</li> <li>• Determine the most favourable moment to sow based on physical parameters;</li> <li>• Estimate the time for harvesting from the standpoint of appearance of plants and the vegetation factors;</li> <li>• Indicate the necessary parameters for drying marigold and anise;</li> <li>• Recognize the moment when the drying process is complete;</li> </ul>	<p>Applies skills needed for <u>performing less complicated and predetermined operative work</u>.</p> <p><u>Handles tools and machines</u> by following detailed instructions and uses prescribed basic material.</p>	<ul style="list-style-type: none"> <li>• Identify the necessary equipment, tools and devices;</li> <li>• Operate machinery, tools and equipment;</li> <li>• Take soil samples;</li> <li>• Fertilize soil based on the sample;</li> <li>• Perform fertilization;</li> <li>• Plough the soil;</li> <li>• Carry out the preparation of soil surface;</li> <li>• Sow the selected seeds;</li> <li>• Nurture marigold and anise (suppress weeds, cultivate, hoe, weed, replenish, irrigate and protect from pests and diseases);</li> <li>• Select a container for disposal of plants when collecting;</li> <li>• Set the required drying parameters;</li> <li>• Pack dried yield of marigold and anise;</li> <li>• Control and adjust the conditions in the warehouse.</li> </ul>	<p>Performs work activities <u>according to determined technical and technological procedures</u> with occasional supervision.</p> <p>Assumes <u>responsibility</u> for applying determined procedures and means as well as for <u>organizing their own work</u>.</p>	
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<b>Title of qualification:</b> THE CULTIVATION OF VEGETABLES IN ENCLOSED SPACE <b>Qualification code:</b> N/A <b>Indicated NQF level:</b> 2 <b>This qualification is based on learning outcomes:</b> Yes but not KSAA			<b><u>Document used for this comparison</u></b> <b>Type:</b> NES internal document <b>Date of development:</b> / <b>Institution – Developer:</b> NES		
<b>Assessment of the relation between expression of learning outcomes for this qualification and NQF level descriptors:</b> LO are defined in the “Training information”, but are named “key competencies”. Level of qualification is not indicated but the qualification sector is according to the Nomenclature. LO are not formulated in details or sort out as Knowledge, Skills and Abilities and attitudes. Work competencies (work description) are not defined but they can be extrapolated from the structure of training programme and names of the modules: <ul style="list-style-type: none"><li>• Preparing the enclosed space for the vegetable production.</li><li>• The setting, the conditions for flourishing in enclosed space (heat, light, water, humidity), the systems of vegetable production (cultivation on the facility soil, substrate cultivation).</li><li>• Processing and preparing the soil for sowing and planting (general agro technical measures - tillage, fertilization, phyto-sanitary measures; special agro technical measures – SO2 enrichment and soil mulching).</li><li>• Sowing and planting vegetables.</li><li>• Hand sowing, sowing in rows, sowing in strips, sowing in boxes.</li><li>• Seedling production.</li><li>• Preparation for the seedling production, sowing, pricking, care of seedlings, transplanting.</li><li>• Collection, extraction (harvest) of vegetables.</li><li>• Occupational safety and health aspects.</li></ul>			<b>Assessment of gap between expression of learning outcomes for this qualification and NQF level descriptors:</b> Knowledge and skills are mixed together in the same statement. Formulation used in describing LO is not appropriate. Abilities and attitudes are not defined.		
Level 2 descriptors NQF versus Identified Learning Outcomes					
NQF level 2 descriptor	Related LO Descriptors:	NQF level 2 descriptor	Related LO Descriptors:	NQF level 2 descriptor	Related LO Descriptors:
Knowledge and understanding		Skills		Abilities and attitudes (AA)	

<p>Possesses general and vocational knowledge of <u>facts and basic principles</u> necessary for performing work and/or for further learning.</p>	<ul style="list-style-type: none"> <li>Knows how to prepare the space for the production of vegetables.</li> </ul>	<p>Applies skills needed for <u>performing less complicated and predetermined operative work</u>.</p> <p><u>Handles tools and machines</u> by following detailed instructions and uses prescribed basic material.</p>	<ul style="list-style-type: none"> <li>Governs the skills of <u>preparation and processing of land for the vegetable production</u>.</li> <li>Governs the skills of <u>selecting the quality sowing and planting material</u>.</li> <li>Governs the skills of the space ventilation, irrigation and heating.</li> <li>Governs and <u>applies the tools and additional resources and material</u>.</li> <li>Applies the quality control procedures.</li> <li>Governs the occupational health and the environment protection and respects the hygienic and technical standards.</li> </ul>	<p>Performs work activities <u>according to determined technical and technological procedures</u> with occasional supervision.</p> <p>Assumes <u>responsibility</u> for applying determined procedures and means as well as for <u>organizing their own work</u>.</p>	
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#### Approach used/methodological explanation:

Training information does not provide information on the level of the qualification. Only available information is that entry requirements is “Minimum primary education”. There is a similar qualification in formal secondary VET (Farmer) on the Level 3 as well as non-formal qualification accredited by the MoESTD Organic production, drying and storing of medical herbs (marigold and anise) which is on the NQF level 2. Decision was made to compare LO for this non-formal qualification against descriptors for NQF level 2 since both non-formal qualifications have the same duration of training programme (180 classes).

The LO are not given in the form of knowledge, skills, abilities and attitudes, but as a “key competencies”. This way of formulating LO presents a challenge when it comes to allocating stated competencies to knowledge, skills, abilities and attitudes as it is given in the template. Draft NQF in Serbia defines “Competence is an integrated set of knowledge, skills, abilities and attitudes that enable individuals to effectively carry out work activities, in line with the expected standard”. So, the given distribution of competencies within columns is based on assessment of predominant feature of statement, since knowledge and skill are mixed in the same statement.

<b>Title of qualification:</b> ELECTRICAL HOME APPLIANCES MAINTENANCE WORKER <b>Qualification code:</b> N/A <b>Indicated NQF level:</b> 3 <b>This qualification is based on learning outcomes:</b> Yes but not KSAA			<b>Document used for this comparison</b> <b>Type:</b> NES internal documents, <b>Date of development:</b> / <b>Institution – Developer:</b> NES		
<b>Assessment of the relation between expression of learning outcomes for this qualification and NQF level descriptors:</b> LO are defined in the “Training information”, but are named “key competencies”. Level of qualification is not indicated but the qualification sector is according to the Nomenclature. LO are not formulated properly (knowledge and skill are mixed). Work competencies (work description) are not defined.			<b>Assessment of gap between expression of learning outcomes for this qualification and NQF level descriptors:</b> Knowledge and skills are mixed together in the same statement. Formulation used in describing LO is not appropriate. Abilities and attitudes are not defined.		
Level 3 descriptors NQF versus Identified Learning Outcomes					
NQF level 3 descriptor	Related LO Descriptors:	NQF level 3 descriptor	Related LO Descriptors:	NQF level 3 descriptor	Related LO Descriptors:
Knowledge and understanding		Skills		Abilities and attitudes (AA)	
Possesses <u>general and vocational knowledge of facts, basic principles and processes</u> necessary for performing work and/or for further learning.	<ul style="list-style-type: none"><li>• Knows how to implement the safety and first aid measures;</li><li>• Knows how to interpret technical documentation;</li><li>• Governs the basics of electrical engineering;</li><li>• Knows how to categorize the household appliances and their types;</li><li>• Governs the principles and procedures of installation and servicing;</li><li>• Governs home appliances, measuring and control techniques, thermal elements, electromechanical elements, hydro - pneumatic - electro - mechanical components;</li></ul>	<p>Applies skills needed for performing <u>medium complex, diverse, occasionally non-standard operative work</u>.</p> <p>Collects and selects <u>information</u>.</p> <p><u>Handles specialized equipment</u>, machines and plant by using different material.</p>	<ul style="list-style-type: none"><li>• Governs and uses various tools, measuring and other work instruments;</li><li>• Knows how to audit the work performed and its quality;</li><li>• Knows how to repair and replace defective parts.</li></ul>	<p>Performs work activities <u>independently</u>, according to determined technical and technological procedures.</p> <p><u>Organizes</u> own work and/or the work of others.</p> <p><u>Assumes responsibility</u> for applying procedures and means as well as for organizing own</p>	

				work.  Demonstrates entrepreneurial spirit in work.	
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**Approach used/methodological explanation:**

Training information does not provide information on the level of the qualification. Only available information is that entry requirements is “Secondary school-leaving certificate. Electrical engineering occupations, interests and abilities would be an asset”. Since there is a similar qualification in formal secondary VET (Electrician) and the qualification is on the Level 3 decision was made to compare LO for this non-formal qualification against descriptors for NQF level 3.

The LO are not given in the form of knowledge, skills, abilities and attitudes, but as a “key competencies”. This way of formulating LO present a challenge when it comes to allocating stated competencies to knowledge, skills, abilities and attitudes as it is given in template. Draft NQF in Serbia defines “Competence is an integrated set of knowledge, skills, abilities and attitudes that enable individuals to effectively carry out work activities, in line with the expected standard”. So, the given distribution of competencies within columns is based on assessment of predominant feature of statement, since knowledge and skill are given in the same statement.

<b>Title of qualification:</b> MAINTENANCE OF CAR AIR-CONDITION DEVICES <b>Qualification code:</b> N/A <b>Indicated NQF level:</b> 2  <b>This qualification is based on learning outcomes:</b> Yes			<b>Document used for this comparison</b> <b>Type:</b> Training programme, Education Gazette – 02/09 <b>Date of development:</b> 2009 <b>Institution – Developer:</b> CARDS Programme. Approved by the IIE and adopted by the MoESTD		
<b>Assessment of the relation between expression of learning outcomes for this qualification and NQF level descriptors:</b> LO are defined in the Training programme, but are named “programme outcomes”. Level of qualification is indicated in Nomenclature code as well as a qualification sector. “Programme outcomes” are formulated as LO but are not classified/sort out as Knowledge, Skills and Abilities and attitudes. Work competencies (work description) are defined but direct link between LO and work competencies is not demonstrated. Following work competence is defined for this qualification: <ul style="list-style-type: none"><li>• Maintenance of car cooling systems.</li></ul> LO are in line with descriptors for the NQF level 2.			<b>Assessment of gap between expression of learning outcomes for this qualification and NQF level descriptors:</b> Abilities and attitudes are not defined.		
Level 2 descriptors NQF versus Identified Learning Outcomes					
NQF level 2 descriptor	Related LO Descriptors:	NQF level 2 descriptor	Related LO Descriptors:	NQF level 2 descriptor	Related LO Descriptors:
Knowledge and understanding		Skills		Abilities and attitudes (AA)	
Possesses general and vocational <u>knowledge of facts and basic principles</u> necessary for performing work and/or for further learning.	<ul style="list-style-type: none"><li>• Explain the operating principle of car cooling systems;</li><li>• Identify the types and components of car cooling systems;</li></ul>	Applies skills needed for <u>performing less complicated and predetermined operative work</u> .  <u>Handles tools and machines</u> by following detailed instructions and uses prescribed basic material.	<ul style="list-style-type: none"><li>• Check the system parameters by using appropriate equipment;</li><li>• Diagnose system malfunctions;</li><li>• Perform the regular minor system repairs;</li><li>• Purify and supplement the system with working fluid without any discharges into the atmosphere.</li></ul>	Performs work activities <u>according to determined technical and technological procedures</u> with occasional supervision.  Assumes <u>responsibility</u> for applying determined	

				procedures and means as well as for <u>organizing their own</u> work.	
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<b>Title of qualification:</b> BUSINESS SECRETARY <b>Qualification code:</b> N/A <b>Indicated NQF level:</b> 4 <b>This qualification is based on learning outcomes:</b> Yes but not KSAA			<b>Document used for this comparison</b> <b>Type:</b> NES internal document <b>Date of development:</b> / <b>Institution – Developer:</b> NES		
<b>Assessment of the relation between expression of learning outcomes for this qualification and NQF level descriptors:</b> LO are defined in the “Training information”, but are named “key competencies”. Level of qualification is not indicated but the qualification sector is according to the Nomenclature. LO are not formulated properly (knowledge and skill are mixed). Work competencies (work description) are not defined.			<b>Assessment of gap between expression of learning outcomes for this qualification and NQF level descriptors:</b> Knowledge and skills are mixed together in the same statement. Formulation used in describing LO is not appropriate. Abilities and attitudes are not defined.		
Level 4 descriptors NQF versus Identified Learning Outcomes					
NQF level 4 descriptor	Related LO Descriptors:	NQF level 4 descriptor	Related LO Descriptors:	NQF level 4 descriptor	Related LO Descriptors:
Knowledge and understanding		Skills		Abilities and attitudes (AA)	
Possesses <u>systematized theoretical or comprehensive vocational knowledge</u> necessary for performing work and/or for further learning.	<ul style="list-style-type: none"><li>▪ Applied knowledge in the field of office and electronic operations (IT);</li><li>▪ Understanding of business etiquette</li></ul>	<p>Applies skills needed for <u>performing complex, diverse, frequently non-standard work</u> by using different methods and techniques.</p> <p>Performs <u>critical selection of relevant information</u> gathered from various sources and applies it in work or study.</p> <p><u>Handles different equipment</u>, machines and plants by using different material.</p>	<ul style="list-style-type: none"><li>▪ The skills of managing documents and applying business technical instructions;</li><li>▪ Information planning and management skills;</li><li>▪ Business correspondence skills;</li><li>▪ Computer skills;</li><li>▪ The skills of understanding, speaking and writing in English (Business English);</li><li>▪ Time management skills;</li><li>▪ Business meetings organization skills;</li></ul>	<p>Performs work <u>independently</u> with occasional consultations.</p> <p><u>Organizes and controls</u> own work and/or the work of small teams.</p> <p><u>Identifies problems</u> and participate in their resolution.</p> <p>Assumes <u>responsibility</u> for selecting procedures and means as well as for own work and/or</p>	



				the work of others.	
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### Approach used/methodological explanation:

Training information does not provide information on the level of the qualification. Only available information is that entry requirements is “minimum level IV (secondary school-leaving certificate) in social sciences with the knowledge of English language and computer skills. Appropriate experience, professional interests and abilities are also taken into account”. Since there is a similar qualification in formal secondary VET (Business administrator) and the qualification is on the Level 4 decision was made to compare LO for his non-formal qualification against descriptors for NQF level 4.

The LO are not given in the form of knowledge, skills, abilities and attitudes, but as a “key competencies”. This way of formulating LO present a challenge when it comes to allocating stated competencies to knowledge, skills, abilities and attitudes as it is given in template. Draft NQF in Serbia defines “Competence is an integrated set of knowledge, skills, abilities and attitudes that enable individuals to effectively carry out work activities, in line with the expected standard”. So, the given distribution of competencies within columns is based on assessment of predominant feature of statement, since knowledge and skill are given in the same statement.

<b>Title of qualification:</b> DRY LINING SYSTEM INSTALLER <b>Qualification code:</b> N/A <b>Indicated NQF level:</b> 3 <b>This qualification is based on learning outcomes:</b> Yes but not KSAA			<b>Document used for this comparison</b> <b>Type:</b> NES internal documents <b>Date of development:</b> / <b>Institution – Developer:</b> NES		
<b>Assessment of the relation between expression of learning outcomes for this qualification and NQF level descriptors:</b> LO are defined in the “Training information”, but are named “key competencies”. Level of qualification is not indicated but the qualification sector is according to the Nomenclature. LO are not formulated in terms of knowledge, skill abilities and attitudes. Work competencies (work description) are not defined.			<b>Assessment of gap between expression of learning outcomes for this qualification and NQF level descriptors:</b> Knowledge and skills are mixed together in the same statement. Formulation used in describing LO is not appropriate. Abilities and attitudes are not defined.		
Level 3 descriptors NQF versus Identified Learning Outcomes					
NQF level 3 descriptor	Related LO Descriptors:	NQF level 3 descriptor	Related LO Descriptors:	NQF level 3 descriptor	Related LO Descriptors:
Knowledge and understanding		Skills		Abilities and attitudes (AA)	
Possesses <u>general and vocational knowledge of facts, basic principles and processes</u> necessary for performing work and/or for further learning.	<ul style="list-style-type: none"><li>Governs the basics of construction;</li><li>Knows and distinguishes between the different types of coverings;</li></ul>	Applies skills needed for performing <u>medium complex, diverse, occasionally non-standard operative work</u> .  Collects and selects <u>information</u> .  <u>Handles specialized equipment</u> , machines and plant by using different material.	<ul style="list-style-type: none"><li>Governs and applies the occupational safety and health measures;</li><li>Governs and uses various machines, tools and work resources;</li><li>Knows how to construct coverings;</li><li>Knows how to processes coverings;</li><li>Knows how to install constructions.</li></ul>	Performs work activities <u>independently</u> , according to determined technical and technological procedures.  <u>Organizes</u> own work and/or the work of others.  <u>Assumes responsibility</u> for applying procedures and means as well as for organizing own work.	

				Demonstrates <u>entrepreneurial</u> spirit in work	
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**Approach used/methodological explanation:**

Training information does not provide information on the level of the qualification. Only available information is that entry requirements is “minimum primary education”. Since there is a similar qualification in formal secondary VET (Dry liner) and the qualification is on the Level 3 decision was made to compare LO for his non-formal qualification against descriptors for NQF level 3.

The LO are not given in the form of knowledge, skills, abilities and attitudes, but as a “key competencies”. This way of formulating LO present a challenge when it comes to allocating stated competencies to knowledge, skills, abilities and attitudes as it is given in template. Draft NQF in Serbia defines “Competence is an integrated set of knowledge, skills, abilities and attitudes that enable individuals to effectively carry out work activities, in line with the expected standard”. So, the given distribution of competencies within columns is based on assessment of predominant feature of statement, since knowledge and skill are given in the same statement.

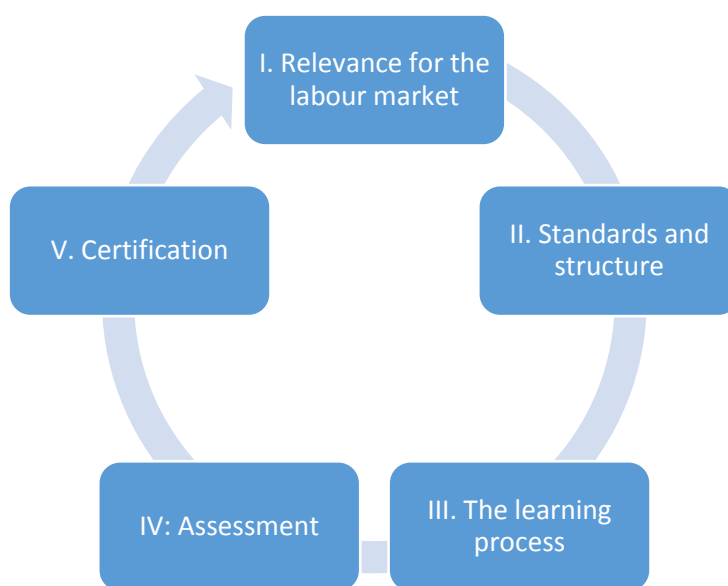
<b>Title of qualification:</b> FABRICATION AND INSTALLATION OF PARTICLEBOARD FURNITURE <b>Qualification code:</b> N/A <b>Indicated NQF level:</b> 2  <b>This qualification is based on learning outcomes:</b> Yes			<b>Document used for this comparison</b> <b>Type:</b> Training programme, Education Gazette – 02/09 <b>Date of development:</b> 2009 <b>Institution – Developer:</b> CARDS Programme. Approved by the IIE and adopted by the MoESTD		
<b>Assessment of the relation between expression of learning outcomes for this qualification and NQF level descriptors:</b> LO are defined in the Training programme, but are named “module outcomes”. Level of qualification is indicated in Nomenclature code as well as a qualification sector. “Module outcomes” are formulated as LO but are not classified/sort out as Knowledge, Skills and Abilities and attitudes. Work competencies (work description) are defined. Following work competence is defined for this qualification: <ul style="list-style-type: none"><li>• Fabrication and installation of particleboard furniture.</li></ul> LO are in line with descriptors for the NQF level 2.			<b>Assessment of gap between expression of learning outcomes for this qualification and NQF level descriptors:</b> No significant gaps were identified. Abilities and attitudes are not fully defined.		
Level 2 descriptors NQF versus Identified Learning Outcomes					
NQF level 2 descriptor	Related LO Descriptors:	NQF level 2 descriptor	Related LO Descriptors:	NQF level 2 descriptor	Related LO Descriptors:
Knowledge and understanding		Skills		Abilities and attitudes (AA)	
Possesses general and vocational <u>knowledge of facts and basic principles</u> necessary for performing work and/or for further learning.	<ul style="list-style-type: none"><li>• Differ types and technological properties of boards;</li><li>• Determine the tools and equipment based on the cutting scheme;</li><li>• Recognize the fire causes;</li></ul> <p>❖</p> <ul style="list-style-type: none"><li>• Select an assembling method (furniture mounting and dismounting);</li></ul>	Applies skills needed for <u>performing less complicated and predetermined operative work</u> .  <u>Handles tools and machines</u> by following detailed instructions and uses prescribed basic material.	<ul style="list-style-type: none"><li>• Select the material according to the purpose of the element;</li><li>• Prepare a cutting scheme;</li><li>• Select suitable tools and operation resources;</li><li>• Configure the main and the auxiliary tools;</li><li>• Apply various operating modes of a board-cutting machine;</li><li>• Observe and eliminate machine malfunctions;</li><li>• Perform all cutting operations;</li></ul>	Performs work activities <u>according to determined technical and technological procedures</u> with occasional supervision.  Assumes <u>responsibility</u> for applying determined procedures and	<ul style="list-style-type: none"><li>• <u>Organize own activities</u> in the work place with the objective of preventing causing a fire;</li></ul>

			<ul style="list-style-type: none"> <li>• Adjust machine parameters for performing veneer and band edging;</li> <li>• Apply and process edge veneer and edge band;</li> <li>• Observe and eliminate the deficiencies that can cause a fire;</li> <li>• Select the proper extinguishing medium.</li> </ul> <p>❖</p> <ul style="list-style-type: none"> <li>• Develop and place the connecting elements;</li> <li>• Place elements into assembly;</li> <li>• Make the necessary connections by gluing;</li> <li>• Set the armature and doors;</li> <li>• Install furniture.</li> </ul>	means as well as for <u>organizing their own work</u> .	
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## Annex 5 – Qualifications Quality Analyses of the Sample qualifications

### Questionnaire for analysis of main features related to the quality of a qualification

The questionnaire for the analysis of the quality of a qualification is divided in 5 parts, based on the five building blocks of the qualification cycle<sup>8</sup> below. Questions about involvement of labour market actors and institutional arrangements are integrated in the building blocks



<sup>8</sup> The focus of the qualification cycle is on VET qualifications and relevance for the labour market. We need to keep in mind that quality and relevance are linked to the purpose of a qualification, and that is not always employment or labour market needs.

Row number in Inventory	Title of Qualification	Translated title (EN)	Qualification type	NQF level
12	Пољопривредни техничар	Agricultural Technician	Formal	4

## Block I: Relevance for the labour market

### Question 1.1

How is the relevance / linkage of this qualification to the labour market / employment ensured?

Indicators:	Evidence
Labour market research	
Employers view / opinions	Obtained through Functional analyses done by the Institute for Improvement of Education (IIE)
Job vacancies	
Other	Members of Council for Vocational and Adult education are representatives of social partners, and the Council proposes to the Minister list of qualifications (education profiles).

### Question 1.2

Which occupations are accessible for the holder of this qualification?

*Note: a qualification can be relevant for a number of different functions / jobs.*

Occupations	Evidence (legislation, labour market practise, agreements, others)
Ратарско - повртарски техничар (оператер) (Vegetable farmer technician)	Rule book on teaching plan and programme for three and four year educational programme in agriculture, food production and processing, Official Gazette – Education Gazette, no. 22/90, 1/93, 1/94, 1/96, 2/2001, 5/2002, 10/2006, 5/2011, 6/2012, 5/2013, 11/2013, 14/2013, 3/2014 and 5/2014)
Воћарско - виноградарски техничар (оператер) (Fruit - vineyard production technician)	
Цвећарско - вртларски техничар (оператер) (Florists – gardening technician)	
Техничар сточарства ('Сточар) (оператер) (Stockbreeder technician)	
Тренер спортских коња (Sport horse coach)	
Техничар живинарства ('Живинар) (Poultry technician)	

### Question 1.3

Are labour market actors<sup>9</sup> involved in defining training needs for this qualification? **Yes** / No

If yes, specify:

Labour market actors	Involved in
Employers and practitioners	As members of Council for Vocational and Adult Education they define need for the qualification and as members of curriculum

<sup>9</sup> Examples of labour market actors are: employers, enterprises, employers organisations, trade unions

	development teams they are defining training needs for the qualification.
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## Block II: Standards and structure

### Question 2.1

What types of standards are behind the qualification?

Type of standards	Yes/No	Who was responsible for the development?
Occupational standards	Yes	Work description is integral part of Qualification Standard that is been developed by Institute for Improvement of Education.
Educational standards	Yes	Learning outcomes are integral part of Qualification Standard and curriculum that are been developed by Institute for Improvement of Education.
Assessment standards	Yes	Rulebook on student assessment in secondary education; VET Matura manual (Institute for Improvement of Education)
Other; namely:		

### Question 2.2

**Please check the interconnection / coherence between:** Occupational standards, qualification standards and the linked programmes (curricula).

Qualification Standard contains work description (occupation standards), which is the basis for defining LO and development of teaching programme (curriculum). There is direct and evident link between these elements in relevant qualifications' documents.

### Question 2.3

How are labour market actors involved in defining standards and ensuring that standards follow the evolutions in the sector?

Standards	Involvement labour market actors
Occupational standards	Participation in the research and verification of work description
Educational standards	/
Assessment standards	/
Other ; namely:	/

### Question 2.4

Are standard periodically modified?

Standards	How often modified?
Occupational standards	/



Educational standards	/
Assessment standards	/
Other ; namely :	The standards are subject of the revision in the period of piloting and introduction into system. Once this process is completed and the qualifications are mainstreamed into the system there is no systematic approach or obligation for modification or revision of these standards.

### Question 2.5

Is this a full qualification or a partial qualification? **Full** / partial

Specify based on documentation.

This is formal qualification and part of initial VET. The draft NQF document does not foreseen the partial qualification as such.

### Question 2.6

Is the qualification structured in units? **Yes** / No

Specify based on documentation

Qualification Standard contains competencies and competence units. The teaching plan and programme for the qualification contains subjects and modules (Official Gazette RS, Education Gazette, no. 6/12).

Block III: Learning process

### Question 3.1

What is the target group for this qualification?

Target group	Yes / No
Young people in full-time education	Yes
Workers / CVET	/
Unemployed	/
Other	

### Question 3.2

(Answer in table below)

- What is/are the learning path(s) for this qualification?
- What is the percentage of practical training in each learning path?
- What is the average duration of the education / training leading to the certificate?
- What are entry requirements?

A. Learning path	Yes /No	B. Practical training in %	C. Average duration	D. Entry requirement
School based	Yes	2718/990 <sup>10</sup> Classes	4 years	Elementary education

<sup>10</sup> Out of 2718 professional/vocational subjects' classes, 990 are realised as practical teaching and "block" teaching (professional practice). The overall number of classes does not include general education subjects. The practical training number does not include professional/vocational subject exercises classes (576).

Work based	No			
Mix of school/work based	No			
Other	/			

### Question 3.3

(Answer in table below)

- Which (type of) providers offer education/training programs for this qualification?
- Are these providers accredited?
- What is the number of new learners enrolled in these education/training programs in the last school year?
- What is the number of graduates from these in the last school year?

A. (Type of) provider	B. Accredited yes / No	C. Number of new learners last school year (indication)	D. Number of graduates last school year (indication)
VET Schools	Yes	1247 (school year 2016-2017)	/

### Question 3.4

Are labour market actors involved in the learning process for this qualification? **Yes/No**

If yes, please specify

Labour market actor	Involved in
Enterprises/Employers/Instructors	Realisation of professional practice (practical teaching)

### Block IV: Assessment<sup>11</sup>

#### Question 4.1

Who is responsible for the assessment for this qualification?

Task	Responsible party		
	The education/training provider	External examination institute / centre	Other ....
Development of exams		X (IIE)	
Organisation of exams	X (VET school)		
Grading exams			X (mixed examination commission)

#### Question 4.2

Who are the assessors?

Assessors	Tick the appropriate and give details

<sup>11</sup> These questions are about the summative assessment that someone has to pass to receive a certificate.

Teachers / trainers	/
Professionals (external)	/
Mixed jury	Examination commissions consist of three members, two teachers and one external professional.
Other	/

#### Question 4.3

Are external professionals involved in the assessment of skills and competences for this qualification? **Yes / No**

If yes please specify:

External professionals	Involved in
Relevant representative of employers nominated by the Chamber of commerce or Union of Employers.	Assessment process of practical work on Vocational Matura. Practical work is part of Vocational Matura at the end of 4 year education. Practical work is for assessing (professional) competencies as defined in QS.

#### Question 4.4

What is the assessment based on?

Assessment based on	Yes / No
Assessment standards/criteria	Yes/ Assessment standards are based on LO
Learning outcomes	Yes
Curriculum	Yes
Other	

#### Question 4.5

What types of assessment are used?

Types of assessment	Yes / No
Written theory exam	Yes
Oral theory exam	/
Study case	/
Practical exam in school or training centre	Yes/Practical exam is carried out in the school or in the company depending on fulfilment of conditions for realisation of the exam.
Practical exam in company	Yes/ If there is cooperation agreement with the company and there are fulfilled condition for the realisation of the exam

Other	/
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#### Question 4.6

What is the percentage of practical assessment of skills and competences for this qualification?

Tick the right box.

Percentage of practical assessment of skills and competences	Comments
0-10%	
10-40%	The VET Matura exam consists of three exams: mother tongue, knowledge test and practical work. Each exam need to be successfully passed.
50-70%	
➤ 70%	

#### Block V: Certification

#### Question 5.1

Who awards (issues) the diploma/certificate for this qualification?

Diploma / Certificate issued by:	Comments
Diploma is issued by the VET school	This is regulated by the Law.

#### Question 5.2

Which authority provides accreditation/recognition for this qualification?

Diploma / Certificate accredited / recognised by:	Comments
This qualification is part of formal education system.	Ministry is accrediting providers (VET schools) that are issuing the Diploma.

#### Question 5.3

Is this qualification, or its standards published / inserted in a Registry, Database, Catalogue supported by public institutions, or / and by sectoral bodies / chambers? **Yes/ no**

Specify which. Link / URL

The qualification is published in the Official Gazette – Education Gazette of the Republic of Serbia.

#### Question 5.4

Which is the quality assurance confirmation of the Qualification? **Yes**

Any brand, reference, certification.

The qualification is approved and adopted by the Council for Vocational and Adult Education and schools are verified for the realisation/teaching of the qualification.

Row number in Inventory	Title of Qualification	Translated title (EN)	Qualification type	NQF level
22	Руководящ – механичар пољопривредне технике	Agricultural Machinery Mechanic	Formal	3

## Block I: Relevance for the labour market

### Question 1.1

How is the relevance / linkage of this qualification to the labour market / employment ensured?

Indicators:	Evidence
Labour market research	
Employers view / opinions	Obtained through Functional analyses and research done by the Institute for Improvement of Education (IIE)
Job vacancies	
Other	Members of Council for Vocational and Adult education are representatives of social partners, and the Council proposes to the Minister list of qualifications (education profiles).

### Question 1.2

Which occupations are accessible for the holder of this qualification?

*Note: a qualification can be relevant for a number of different functions / jobs.*

Occupations	Evidence (legislation, labour market practise, agreements, others)
Руководящ пољопривредних машина (Agricultural Machinery Mechanic)	Rule book on teaching plan and programme for three and four year educational programme in agriculture, food production and processing, Official Gazette – Education Gazette, no. 1/93, 1/94, 1/96, 2/01, 05/02, 10/06, 5/11, 6/12, 1/13, 2/13, 5/2014 and 5 /15,)
Хидромелиоратор (Hydro melioration)	

### Question 1.3

Are labour market actors<sup>12</sup> involved in defining training needs for this qualification? **Yes** / No

If yes, specify:

Labour market actors	Involved in
Employers and practitioners	As members of Council for Vocational and Adult Education they define need for the qualification and as members of curriculum development teams they are defining training needs for the qualification.

## Block II: Standards and structure

### Question 2.1

What types of standards are behind the qualification?

Type of standards	Yes/No	Who was responsible for the development?
Occupational standards	Yes	Work description is integral part of Qualification Standard that is been developed by Institute for Improvement of Education.

<sup>12</sup> Examples of labour market actors are: employers, enterprises, employers organisations, trade unions

Educational standards	Yes	Learning outcomes are integral part of Qualification Standard and curriculum that are been developed by Institute for Improvement of Education.
Assessment standards	Yes	Rulebook on student assessment in secondary education; Final exam manuals (Institute for Improvement of Education)
Other; namely :		

### Question 2.2

**Please check the interconnection / coherence between:** Occupational standards, qualification standards and the linked programmes (curricula).  
Qualification Standard contains work description (occupation standards), which is the bases for defining LO and development of teaching programme (curriculum). There is direct and evident link between these elements in relevant qualifications' documents.

### Question 2.3

How are labour market actors involved in defining standards and ensuring that standards follow the evolutions in the sector?

Standards	Involvement labour market actors
Occupational standards	Participation in the research and verification of work description
Educational standards	/
Assessment standards	/
Other ; namely :	/

### Question 2.4

Are standard periodically modified?

Standards	How often modified?
Occupational standards	/
Educational standards	/
Assessment standards	/
Other ; namely :	The standards are subject of the revision in the period of piloting and introduction into system. Once this process is completed and the qualifications are mainstreamed into system there is no systematic approach or obligation for modification or revision of these standards.

### Question 2.5

Is this a full qualification or a partial qualification? **Full** / partial

Specify based on documentation.

This is formal qualification and part of initial VET. The draft NQF document does not foreseen the partial qualification as such.

### Question 2.6

Is the qualification structured in units? **Yes / No**

Specify based on documentation

Qualification Standard contains competencies and competence units. The Teaching plan and programme for the qualification contains subjects and modules (Official Gazette RS, Education Gazette, no. 5/11).

Block III: Learning process

### Question 3.1

What is the target group for this qualification?

Target group	Yes / No
Young people in full-time education	Yes
Workers / CVET	/
Unemployed	/
Other	

### Question 3.2

(Answer in table below)

- A. What is/are the learning path(s) for this qualification?
- B. What is the percentage of practical training in each learning path?
- C. What is the average duration of the education / training leading to the certificate?
- D. What are entry requirements?

A. Learning path	Yes /No	B. Practical training in %	C. Average duration	D. Entry requirement
School based	Yes	2376/1192 <sup>13</sup>	3 years	Elementary education
Work based	No			
Mix of school/work based	No			
Other	/			

### Question 3.3

(Answer in table below)

- A. Which (type of) providers offer education/training programs for this qualification?
- B. Are these providers accredited?
- C. What is the number of new learners enrolled in these education/training programs in the last schoolyear?
- D. What is the number of graduates from these in the last schoolyear?

<sup>13</sup> Out of 2376 professional/vocational subjects' classes, 1192 are realised as practical teaching and "block" teaching (professional practice). The overall number of classes does not include general education subjects. The practical training number does not include professional/vocational subject exercises classes (352).

A. (Type of) provider	B. Accredited yes / No	C. Number of new learners last schoolyear (indication)	D. Number of graduates last schoolyear (Indication)
VET Schools	Yes	207 (School year 2016 – 2017)	/

#### Question 3.4

Are labour market actors involved in the learning process for this qualification? **Yes/No**

If yes, please specify

Labour market actor	Involved in
Enterprises/Employers/Instructors	Realisation of professional practice (practical teaching)

Block IV: Assessment<sup>14</sup>

#### Question 4.1

Who is responsible for the assessment for this qualification?

Task	Responsible party		
	The education/training provider	External examination institute / centre	Other
Development of exams		X (IIE)	
Organisation of exams	X (VET school)		
Grading exams			X (mixed examination commission)

#### Question 4.2

Who are the assessors?

Assessors	Tick the appropriate and give details
Teachers / trainers	/
Professionals (external)	/
Mixed jury	Examination commissions consist of three members, two teachers and one external professional.
Other	/

#### Question 4.3

Are external professionals involved in the assessment of skills and competences for this qualification? **Yes / No**

If yes please specify:

External professionals	Involved in
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<sup>14</sup> These questions are about the summative assessment that someone has to pass to receive a certificate.



Relevant representative of employers nominated by the Chamber of commerce or Union of Employers.	Assessment process of practical work on Vocational Final Exam. Practical work is for assessing (professional) competencies as defined in QS.
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#### Question 4.4

What is the assessment based on?

Assessment based on	Yes / No
Assessment standards/criteria	Yes/ Assessment standards are based on LO
Learning outcomes	Yes
Curriculum	Yes
Other	

#### Question 4.5

What types of assessment are used?

Types of assessment	Yes / No
Written theory exam	/
Oral theory exam	/
Study case	/
Practical exam in school or training centre	Yes/Practical exam is carried out in the school or in the company depending on fulfilment of conditions for realisation of the exam.
Practical exam in company	Yes/ If there is cooperation agreement with the company and there are fulfilled condition for the realisation of the exam
Other	/

#### Question 4.6

What is the percentage of practical assessment of skills and competences for this qualification?

Tick the right box.

Percentage of practical assessment of skills and competences	Comments
0-10%	
10-40%	
50-70%	
➤ 70%	VET Final Exam consists of practical work that is providing the bases for competency based assessment.

## Block V: Certification

### Question 5.1

Who awards (issues) the diploma/certificate for this qualification?

Diploma / Certificate issued by:	Comments
Diploma is issued by the VET school	This is regulated by the Law.

### Question 5.2

Which authority provides accreditation/recognition for this qualification?

Diploma / Certificate accredited / recognised by:	Comments
This qualification is part of formal education system.	Ministry is accrediting providers (VET schools) that are issuing the Diploma.

### Question 5.3

Is this qualification, or its standards published / inserted in a Registry, Database, Catalogue supported by public institutions, or / and by sectoral bodies / chambers? **Yes/ no**

Specify which. Link / URL

The qualification is published in the Official Gazette – Education Gazette of the Republic of Serbia.

### Question 5.4

Which is the quality assurance confirmation of the Qualification? Yes

Any brand, reference, certification.

The qualification is approved and adopted by the Council for Vocational and Adult Education and schools are verified for the realisation/teaching of the qualification.

Row number in Inventory	Title of Qualification	Translated title (EN)	Qualification type	NQF level
122	Електротехничар за електронику на возилима	Electro Technician for Electronics in Vehicles	Formal	4

## Block I: Relevance for the labour market

### Question 1.1

How is the relevance / linkage of this qualification to the labour market / employment ensured?

Indicators:	Evidence
Labour market research	
Employers view / opinions	Obtained through Functional analyses and research done by the Institute for Improvement of Education (IIE)
Job vacancies	
Other	Members of Council for Vocational and Adult education are representatives of social partners, and the Council proposes to the Minister list of qualifications (education profiles).

### Question 1.2

Which occupations are accessible for the holder of this qualification?

*Note: a qualification can be relevant for a number of different functions / jobs.*

Occupations	Evidence (legislation, labour market practise, agreements, others)
Electro Technician for Electronics in Vehicles. Occupations are not listed.	Rule book on teaching plan and programme for three and four year educational programme in Electrical engineering, Official Gazette – Education Gazette, no. 4/04, 13/04, 12/05, 8/06, 3/07, 5/11, 7/12, 2/13, 3/13, 10/14 and 8/15)

### Question 1.3

Are labour market actors<sup>15</sup> involved in defining training needs for this qualification? **Yes / No**

If yes, specify:

Labour market actors	Involved in
Employers and practitioners	As members of Council for Vocational and Adult Education they define need for the qualification and as members of curriculum development teams they are defining training needs for the qualification.

## Block II: Standards and structure

### Question 2.1

What types of standards are behind the qualification?

Type of standards	Yes/No	Who was responsible for the development?
Occupational standards	Yes	Work description is integral part of Qualification Standard that is been developed by Institute for Improvement of Education.

<sup>15</sup> Examples of labour market actors are: employers, enterprises, employers organisations, trade unions

Educational standards	Yes	Learning outcomes are integral part of Qualification Standard and curriculum that are been developed by the Institute for Improvement of Education.
Assessment standards	Yes	Rulebook on student assessment in secondary education; VET Matura manuals (Institute for Improvement of Education)
Other; namely :		

### Question 2.2

**Please check the interconnection / coherence between:** Occupational standards, qualification standards and the linked programmes (curricula).  
Qualification Standard contains work description (occupation standards), which is the bases for defining LO and development of teaching programme (curriculum). There is direct and evident link between these elements in relevant qualifications' documents.

### Question 2.3

How are labour market actors involved in defining standards and ensuring that standards follow the evolutions in the sector?

Standards	Involvement labour market actors
Occupational standards	Participation in the research and verification of work description
Educational standards	/
Assessment standards	/
Other ; namely :	/

### Question 2.4

Are standard periodically modified?

Standards	How often modified?
Occupational standards	/
Educational standards	/
Assessment standards	/
Other ; namely :	The standards are subject of the revision in the period of piloting and introduction into system. Once this process is completed and the qualifications are mainstreamed into system there is no systematic approach or obligation for modification or revision of these standards.

### Question 2.5

Is this a full qualification or a partial qualification? **Full** / partial

Specify based on documentation.

This is formal qualification and part of initial VET. The draft NQF document does not foreseen the partial qualification as such.

## Question 2.6

Is the qualification structured in units? **Yes / No**

Specify based on documentation

Qualification Standard contains competencies and competence units. The Teaching plan and programme for the qualification contains subjects and modules (Official Gazette RS, Education Gazette, no. 8/15).

Block III: Learning process

## Question 3.1

What is the target group for this qualification?

Target group	Yes / No
Young people in full-time education	Yes
Workers / CVET	/
Unemployed	/
Other	

## Question 3.2

(Answer in table below)

- What is/are the learning path(s) for this qualification?
- What is the percentage of practical training in each learning path?
- What is the average duration of the education / training leading to the certificate?
- What are entry requirements?

A. Learning path	Yes /No	B. Practical training in %	C. Average duration	D. Entry requirement
School based	Yes	2691/1069 <sup>16</sup>	4 years	Elementary education
Work based	No			
Mix of school /work based	No			
Other	/			

## Question 3.3

(Answer in table below)

- Which (type of) providers offer education/training programs for this qualification?
- Are these providers accredited?
- What is the number of new learners enrolled in these education/training programs in the last schoolyear?
- What is the number of graduates from these in the last schoolyear?

<sup>16</sup> Out of 2691 professional/vocational subjects' classes, 1069 are realised as practical teaching and "block" teaching (professional practice). The overall number of classes does not include general education subjects. The practical training number does not include professional/vocational subject exercises classes (229).

A. (Type of) provider	B. Accredited yes / No	C. Number of new learners last schoolyear (indication)	D. Number of graduates last schoolyear (Indication)
VET Schools	Yes	417 (school year 2016-2017)	/

### Question 3.4

Are labour market actors involved in the learning process for this qualification? **Yes/No**

If yes, please specify

Labour market actor	Involved in
Enterprises/Employers/Instructors	Realisation of professional practice (practical teaching)

Block IV: Assessment<sup>17</sup>

### Question 4.1

Who is responsible for the assessment for this qualification?

Task	Responsible party		
	The education/training provider	External examination institute / centre	Other ....
Development of exams		X (IIE)	
Organisation of exams	X (VET school)		
Grading exams			X (mixed examination commission)

### Question 4.2

Who are the assessors?

Assessors	Tick the appropriate and give details
Teachers / trainers	/
Professionals (external)	/
Mixed jury	Examination commissions consist of three members, two teachers and one external professional.
Other	/

### Question 4.3

Are external professionals involved in the assessment of skills and competences for this qualification? **Yes / No**

If yes please specify:

External professionals	Involved in
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<sup>17</sup> These questions are about the summative assessment that someone has to pass to receive a certificate.

Relevant representative of employers nominated by the Chamber of commerce or Union of Employers.	Assessment process of practical work. Practical work is part of Vocational Matura at the end of 4 year education. Practical work is for assessing (professional) competencies as defined in QS.
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#### Question 4.4

What is the assessment based on?

Assessment based on	Yes / No
Assessment standards/criteria	Yes/ Assessment standards are based on LO
Learning outcomes	Yes
Curriculum	Yes
Other	

#### Question 4.5

What types of assessment are used?

Types of assessment	Yes / No
Written theory exam	Yes
Oral theory exam	/
Study case	/
Practical exam in school or training centre	Yes/Practical exam is carried out in the school or in the company depending on fulfilment of conditions for realisation of the exam.
Practical exam in company	Yes/ If there is cooperation agreement with the company and there are fulfilled condition for the realisation of the exam.
Other	/

#### Question 4.6

What is the percentage of practical assessment of skills and competences for this qualification?

Tick the right box.

Percentage of practical assessment of skills and competences	Comments
0-10%	
10-40%	The VET Matura exam consists of three exams: mother tongue, knowledge test and practical work (1/3).
50-70%	

➤ 70%

## Block V: Certification

### Question 5.1

Who awards (issues) the diploma/certificate for this qualification?

Diploma / Certificate issued by:	Comments
Diploma is issued by the VET school	This is regulated by the Law.

### Question 5.2

Which authority provides accreditation/recognition for this qualification?

Diploma / Certificate accredited / recognised by:	Comments
This qualification is part of formal education system.	Ministry is accrediting providers (VET schools) that are issuing the Diploma.

### Question 5.3

Is this qualification, or its standards published / inserted in a Registry, Database, Catalogue supported by public institutions, or / and by sectoral bodies / chambers? **Yes/ No**

Specify which. Link / URL

The qualification is published in the Official Gazette – Education Gazette of the Republic of Serbia.

### Question 5.4

Which is the quality assurance confirmation of the Qualification? Yes

Any brand, reference, certification.

The qualification is approved and adopted by the Council for Vocational and Adult Education and schools are verified for the realisation/teaching of the qualification.



Row number in Inventory	Title of Qualification	Translated title (EN)	Qualification type	NQF level
133	Аутоелектричар	Car Electrician	Formal	3

## Block I: Relevance for the labour market

### Question 1.1

How is the relevance / linkage of this qualification to the labour market / employment ensured?

Indicators:	Evidence
Labour market research	
Employers view / opinions	Obtained through DACUM expert group (employers and practitioners). DACUM map and list of participants. Institute for Improvement of Education (IIE)
Job vacancies	
Other	Members of Council for Vocational and Adult education are representatives of social partners, and the Council proposes to the Minister list of qualifications (education profiles).

### Question 1.2

Which occupations are accessible for the holder of this qualification?

*Note: a qualification can be relevant for a number of different functions / jobs.*

Occupations	Evidence (legislation, labour market practise, agreements, others)
Аутоелектричар (Car Electrician) Occupations are not listed.	Rule book on teaching plan and programme for three and four year educational programme in Electrical engineering, Official Gazette – Education Gazette, no. 4/93, 3/01, 8/02, 3/03, 2/07, 5/11, 7/12, 2/13, 11/13)

### Question 1.3

Are labour market actors<sup>18</sup> involved in defining training needs for this qualification? **Yes / No**

If yes, specify:

Labour market actors	Involved in
Employers and practitioners	DACUM process of work (occupation) analyses.  As members of Council for Vocational and Adult Education they define need for the qualification and as members of curriculum development teams they are defining training needs for the qualification.

## Block II: Standards and structure

### Question 2.1

What types of standards are behind the qualification?

Type of standards	Yes/No	Who was responsible for the development?
Occupational standards	Yes	Work description is integral part of Qualification Standard that is been developed by Institute for Improvement of Education.

<sup>18</sup> Examples of labour market actors are: employers, enterprises, employers organisations, trade unions

Educational standards	Yes	Learning outcomes are integral part of Qualification Standard and curriculum that are been developed by the Institute for Improvement of Education.
Assessment standards	Yes	Rulebook on student assessment in secondary education; Final exam manuals (Institute for Improvement of Education)
Other; namely :		

### Question 2.2

**Please check the interconnection / coherence between:** Occupational standards, qualification standards and the linked programmes (curricula).

Qualification Standard contains work description (occupation standards), which is the bases for defining LO and development of teaching programme (curriculum). There is direct and evident link between these elements in relevant qualifications' documents.

### Question 2.3

How are labour market actors involved in defining standards and ensuring that standards follow the evolutions in the sector?

Standards	Involvement labour market actors
Occupational standards	In DACUM method
Educational standards	/
Assessment standards	/
Other ; namely :	/

### Question 2.4

Are standard periodically modified?

Standards	How often modified?
Occupational standards	/
Educational standards	/
Assessment standards	/
Other ; namely :	The standards are subject of the revision in the period of piloting and introduction into system. Once this process is completed and the qualifications are mainstreamed into system there is no systematic approach or obligation for modification or revision of these standards.

### Question 2.5

Is this a full qualification or a partial qualification? **Full** / partial

Specify based on documentation.

This is formal qualification and part of initial VET. The draft NQF document does not foreseen the partial qualification as such.

### Question 2.6

Is the qualification structured in units? **Yes / No**

Specify based on documentation

Qualification Standard contains competencies and competence units. The Teaching plan and programme for the qualification contains subjects and modules (Official Gazette RS, Education Gazette, no. 7/12).

Block III: Learning process

### Question 3.1

What is the target group for this qualification?

Target group	Yes / No
Young people in full-time education	Yes
Workers / CVET	/
Unemployed	/
Other	

### Question 3.2

(Answer in table below)

- What is/are the learning path(s) for this qualification?
- What is the percentage of practical training in each learning path?
- What is the average duration of the education / training leading to the certificate?
- What are entry requirements?

A. Learning path	Yes /No	B. Practical training in %	C. Average duration	D. Entry requirement
School based	Yes	2303/1201 <sup>19</sup>	3 years	Elementary education
Work based	No			
Mix of school/work based	No			
Other	/			

### Question 3.3

(Answer in table below)

- Which (type of) providers offer education/training programs for this qualification?
- Are these providers accredited?
- What is the number of new learners enrolled in these education/training programs in the last school year?
- What is the number of graduates from these in the last school year?

<sup>19</sup> Out of 2303 professional/vocational subjects' classes, 1201 are realised as practical teaching and "block" teaching (professional practice). The overall number of classes does not include general education subjects. The practical training number does not include professional/vocational subject exercises classes (171).

A. (Type of) provider	B. Accredited yes / No	C. Number of new learners last schoolyear (indication)	D. Number of graduates last schoolyear (Indication)
VET Schools	Yes	348 (school year 2016-2017)	/

### Question 3.4

Are labour market actors involved in the learning process for this qualification? **Yes/No**

If yes, please specify

Labour market actor	Involved in
Enterprises/Employers/Instructors	Realisation of professional practice (practical teaching)

Block IV: Assessment<sup>20</sup>

### Question 4.1

Who is responsible for the assessment for this qualification?

Task	Responsible party		
	The education/training provider	External examination institute / centre	Other ....
Development of exams		X (IIE)	
Organisation of exams	X (VET school)		
Grading exams			X (mixed examination commission)

### Question 4.2

Who are the assessors?

Assessors	Tick the appropriate and give details
Teachers / trainers	/
Professionals (external)	/
Mixed jury	Examination commissions consist of three members, two teachers and one external professional.
Other	/

### Question 4.3

Are external professionals involved in the assessment of skills and competences for this qualification? **Yes / No**

If yes please specify:

External professionals	Involved in
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<sup>20</sup> These questions are about the summative assessment that someone has to pass to receive a certificate.

Relevant representative of employers nominated by the Chamber of commerce or Union of Employers.	Assessment process of practical work on Vocational Final Exam. Practical work is assessing (professional) competencies as defined in QS.
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#### Question 4.4

What is the assessment based on?

Assessment based on	Yes / No
Assessment standards/criteria	Yes/ Assessment standards are based on LO
Learning outcomes	Yes
Curriculum	Yes
Other	

#### Question 4.5

What types of assessment are used?

Types of assessment	Yes / No
Written theory exam	/
Oral theory exam	/
Study case	/
Practical exam in school or training centre	Yes/Practical exam is carried out in the school or in the company depending on fulfilment of conditions for realisation of the exam.
Practical exam in company	Yes/ If there is cooperation agreement with the company and there are fulfilled condition for the realisation of the exam
Other	/

#### Question 4.6

What is the percentage of practical assessment of skills and competences for this qualification?

Tick the right box.

Percentage of practical assessment of skills and competences	Comments
0-10%	
10-40%	
50-70%	
➤ 70%	VET Final Exam consists of practical work that is providing the bases for competency assessment.

## Block V: Certification

### Question 5.1

Who awards (issues) the diploma/certificate for this qualification?

Diploma / Certificate issued by:	Comments
Diploma is issued by the VET school	This is regulated by the Law.

### Question 5.2

Which authority provides accreditation/recognition for this qualification?

Diploma / Certificate accredited / recognised by:	Comments
This qualification is part of formal education system.	Ministry is accrediting providers (VET schools).

### Question 5.3

Is this qualification, or its standards published / inserted in a Registry, Database, Catalogue supported by public institutions, or / and by sectoral bodies / chambers? **Yes/ no**

Specify which. Link / URL

The qualification is published in the Official Gazette – Education Gazette of the Republic of Serbia.

### Question 5.4

Which is the quality assurance confirmation of the Qualification? Yes

Any brand, reference, certification.

The qualification is approved and adopted by the Council for Vocational and Adult Education and schools are verified for the realisation/teaching of the qualification.

Row number in Inventory	Title of Qualification	Translated title (EN)	Qualification type	NQF level
128	Техничар мехатронике	Mechatronics Technician	Formal	4

## Block I: Relevance for the labour market

### Question 1.1

How is the relevance / linkage of this qualification to the labour market / employment ensured?

Indicators:	Evidence
Labour market research	
Employers view / opinions	Obtained through DACUM expert group (employers and practitioners). DACUM map and list of participants. Institute for Improvement of Education (IIE)
Job vacancies	
Other	Members of Council for Vocational and Adult education are representatives of social partners, and the Council proposes to the Minister list of qualifications (education profiles).

### Question 1.2

Which occupations are accessible for the holder of this qualification?

*Note: a qualification can be relevant for a number of different functions / jobs.*

Occupations	Evidence (legislation, labour market practise, agreements, others)
Техничар мехатронике (Mechatronics Technician) Occupations are not listed	Rule book on teaching plan and programme, Official Gazette – Education Gazette, no. 9/07, 6/10, 5/11, 9/13, 11/13, 14/13 and 10/14)

### Question 1.3

Are labour market actors<sup>21</sup> involved in defining training needs for this qualification? **Yes** / No

If yes, specify:

Labour market actors	Involved in
Employers and practitioners	DACUM process of work (occupation) analyses.  As members of Council for Vocational and Adult Education they define need for the qualification and as members of curriculum development teams they are defining training needs for the qualification.

## Block II: Standards and structure

### Question 2.1

What types of standards are behind the qualification?

Type of standards	Yes/No	Who was responsible for the development?
Occupational standards	Yes	Work description is integral part of Qualification Standard that is been developed by Institute for Improvement of

<sup>21</sup> Examples of labour market actors are: employers, enterprises, employers organisations, trade unions

		Education.
Educational standards	Yes	Learning outcomes are integral part of Qualification Standard and curriculum that are been developed by Institute for Improvement of Education.
Assessment standards	Yes	Rulebook on student assessment in secondary education; VET Matura manual (Institute for Improvement of Education)
Other; namely :		

### Question 2.2

**Please check the interconnection / coherence between:** Occupational standards, qualification standards and the linked programmes (curricula).

Qualification Standard contains work description (occupation standards), which is the bases for defining LO and development of teaching programme (curriculum). There is direct and evident link between these elements in relevant qualifications' documents.

### Question 2.3

How are labour market actors involved in defining standards and ensuring that standards follow the evolutions in the sector?

Standards	Involvement labour market actors
Occupational standards	In DACUM method
Educational standards	/
Assessment standards	/
Other ; namely :	/

### Question 2.4

Are standard periodically modified?

Standards	How often modified?
Occupational standards	/
Educational standards	/
Assessment standards	/
Other ; namely :	The standards are subject of the revision in the period of piloting and introduction into system. Once this process is completed and the qualifications are mainstreamed into system there is no systematic approach or obligation for modification or revision of these standards.

### Question 2.5

Is this a full qualification or a partial qualification? **Full** / partial  
Specify based on documentation.



This is formal qualification and part of initial VET. The draft NQF document does not foreseen the partial qualification as such.

#### Question 2.6

Is the qualification structured in units? **Yes / No**

Specify based on documentation

Qualification Standard contains competencies and competence units. The Teaching plan and programme for the qualification contains subjects and modules (Official Gazette RS, Education Gazette, no. 10/14).

Block III: Learning process

#### Question 3.1

What is the target group for this qualification?

Target group	Yes / No
Young people in full-time education	Yes
Workers / CVET	/
Unemployed	/
Other	

#### Question 3.2

(Answer in table below)

- What is/are the learning path(s) for this qualification?
- What is the percentage of practical training in each learning path?
- What is the average duration of the education / training leading to the certificate?
- What are entry requirements?

A. Learning path	Yes /No	B. Practical training in %	C. Average duration	D. Entry requirement
School based	Yes	2669/381 <sup>22</sup>	4 years	Elementary education
Work based	No			
Mix of school/work based	No			
Other	/			

#### Question 3.3

(Answer in table below)

- Which (type of) providers offer education/training programs for this qualification?
- Are these providers accredited?
- What is the number of new learners enrolled in these education/training programs in the last schoolyear?

<sup>22</sup> Out of 2669 professional/vocational subjects' classes, 381 are realised as practical teaching and "block" teaching (professional practice). The overall number of classes does not include general education subjects. The practical training number does not include professional/vocational subject exercises (1225) classes.

D. What is the number of graduates from these in the last schoolyear?

A. (Type of) provider	B. Accredited yes / No	C. Number of new learners last schoolyear (indication)	D. Number of graduates last schoolyear (Indication)
VET Schools	Yes	600 (school year 2016-2017)	/

#### Question 3.4

Are labour market actors involved in the learning process for this qualification? **Yes/No**

If yes, please specify

Labour market actor	Involved in
Enterprises/Employers/Instructors	Realisation of professional practice (practical teaching)

Block IV: Assessment<sup>23</sup>

#### Question 4.1

Who is responsible for the assessment for this qualification?

Task	Responsible party		
	The education/training provider	External examination institute / centre	Other ....
Development of exams		X (IIE)	
Organisation of exams	X (VET school)		
Grading exams			X (mixed examination commission)

#### Question 4.2

Who are the assessors?

Assessors	Tick the appropriate and give details
Teachers / trainers	/
Professionals (external)	/
Mixed jury	Examination commissions consist of three members, two teachers and one external professional.
Other	/

#### Question 4.3

Are external professionals involved in the assessment of skills and competences for this qualification? **Yes / No**

If yes please specify:

<sup>23</sup> These questions are about the summative assessment that someone has to pass to receive a certificate.

External professionals	Involved in
Relevant representative of employers nominated by the Chamber of commerce or Union of Employers.	Assessment process of practical work on Vocational Matura. Practical work is part of Vocational Matura at the end of 4 year education. Practical work is for assessing (professional) competencies as defined in QS.

#### Question 4.4

What is the assessment based on?

Assessment based on	Yes / No
Assessment standards/criteria	Yes/ Assessment standards are based on LO
Learning outcomes	Yes
Curriculum	Yes
Other	

#### Question 4.5

What types of assessment are used?

Types of assessment	Yes / No
Written theory exam	Yes
Oral theory exam	/
Study case	/
Practical exam in school or training centre	Yes/Practical exam is carried out in the school or in the company depending on fulfilment of conditions for realisation of the exam.
Practical exam in company	Yes/ If there is cooperation agreement with the company and there are fulfilled condition for the realisation of the exam
Other	/

#### Question 4.6

What is the percentage of practical assessment of skills and competences for this qualification?

Tick the right box.

Percentage of practical assessment of skills and competences	Comments
0-10%	
10-40%	The VET Matura exam consists of three exams: mother

	tongue, knowledge test and practical work (1/3).
50-70%	
➤ 70%	

## Block V: Certification

### Question 5.1

Who awards (issues) the diploma/certificate for this qualification?

Diploma / Certificate issued by:	Comments
Diploma is issued by the VET school	This is regulated by the Law.

### Question 5.2

Which authority provides accreditation/recognition for this qualification?

Diploma / Certificate accredited / recognised by:	Comments
This qualification is part of formal education system.	Ministry is accrediting providers (VET schools) that are issuing the Diploma.

### Question 5.3

Is this qualification, or its standards published / inserted in a Registry, Database, Catalogue supported by public institutions, or / and by sectoral bodies / chambers? **Yes/ no**

Specify which. Link / URL

The qualification is published in the Official Gazette – Education Gazette of the Republic of Serbia.

### Question 5.4

Which is the quality assurance confirmation of the Qualification? Yes

Any brand, reference, certification.

The qualification is approved and adopted by the Council for Vocational and Adult Education and schools are verified for the realisation/teaching of the qualification.

Row number in Inventory	Title of Qualification	Translated title (EN)	Qualification type	NQF level
111	Оператер машинске обраде	Mechanical Processing Operator	Formal	3

## Block I: Relevance for the labour market

### Question 1.1

How is the relevance / linkage of this qualification to the labour market / employment ensured?

Indicators:	Evidence
Labour market research	
Employers view / opinions	Obtained through Functional analyses and Research done by the Institute for Improvement of Education (IIE)
Job vacancies	
Other	Members of Council for Vocational and Adult education are representatives of social partners, and the Council proposes to the Minister list of qualifications (education profiles).

### Question 1.2

Which occupations are accessible for the holder of this qualification?

*Note: a qualification can be relevant for a number of different functions / jobs.*

Occupations	Evidence (legislation, labour market practise, agreements, others)
Оператер машинске обраде (Mechanical Processing Operator) Occupations are not listed.	Rule book on teaching plan and programme, Official Gazette – Education Gazette, no. 4/04, 17/04, 11/05, 8/06, 03/07, 9/13, 11/13, 14/13, 6/14, 4/15 and 11/15)

### Question 1.3

Are labour market actors<sup>24</sup> involved in defining training needs for this qualification? **Yes / No**

If yes, specify:

Labour market actors	Involved in
Employers and practitioners	Research on qualification. As members of Council for Vocational and Adult Education they define need for the qualification and as members of curriculum development teams they are defining training needs for the qualification.

## Block II: Standards and structure

### Question 2.1

What types of standards are behind the qualification?

Type of standards	Yes/No	Who was responsible for the development?
Occupational standards	Yes	Work description is integral part of Qualification Standard that is been developed by Institute for Improvement of Education.

<sup>24</sup> Examples of labour market actors are: employers, enterprises, employers organisations, trade unions

Educational standards	Yes	Learning outcomes are integral part of Qualification Standard and curriculum that are been developed by Institute for Improvement of Education.
Assessment standards	Yes	Rulebook on student assessment in secondary education; Final exam manual (Institute for Improvement of Education)
Other; namely :		

### Question 2.2

**Please check the interconnection / coherence between:** Occupational standards, qualification standards and the linked programmes (curricula).

Qualification Standard contains work description (occupation standards), which is the bases for defining LO and development of teaching programme (curriculum). There is direct and evident link between these elements in relevant qualifications' documents.

### Question 2.3

How are labour market actors involved in defining standards and ensuring that standards follow the evolutions in the sector?

Standards	Involvement labour market actors
Occupational standards	Participation in the research and verification of work description
Educational standards	/
Assessment standards	/
Other ; namely :	/

### Question 2.4

Are standard periodically modified?

Standards	How often modified?
Occupational standards	/
Educational standards	/
Assessment standards	/
Other ; namely :	The standards are subject of the revision in the period of piloting and introduction into system. Once this process is completed and the qualifications are mainstreamed into system there is no systematic approach or obligation for modification or revision of these standards.

### Question 2.5

Is this a full qualification or a partial qualification? **Full** / partial  
Specify based on documentation.

This is formal qualification and part of initial VET. The draft NQF document does not foreseen the partial qualification as such.

#### Question 2.6

Is the qualification structured in units? **Yes** / No

Specify based on documentation

Qualification Standard contains competencies and competence units. The Teaching plan and programme for the qualification contains subjects and modules (Official Gazette RS, Education Gazette, no. 4/15).

Block III: Learning process

#### Question 3.1

What is the target group for this qualification?

Target group	Yes / No
Young people in full-time education	Yes
Workers / CVET	/
Unemployed	/
Other	

#### Question 3.2

(Answer in table below)

- What is/are the learning path(s) for this qualification?
- What is the percentage of practical training in each learning path?
- What is the average duration of the education / training leading to the certificate?
- What are entry requirements?

A. Learning path	Yes /No	B. Practical training in %	C. Average duration	D. Entry requirement
School based	Yes	2315/1398 <sup>25</sup>	3 years	Elementary education
Work based	No			
Mix of school/work based	No			
Other	/			

#### Question 3.3

(Answer in table below)

- Which (type of) providers offer education/training programs for this qualification?
- Are these providers accredited?
- What is the number of new learners enrolled in these education/training programs in the last schoolyear?
- What is the number of graduates from these in the last schoolyear?

<sup>25</sup> Out of 2315 professional/vocational subjects' classes, 1398 are realised as practical teaching and "block" teaching (professional practice). The overall number of classes does not include general education subjects. The practical training number does not include professional/vocational subject exercises classes (377).

A. (Type of) provider	B. Accredited yes / No	C. Number of new learners last schoolyear (indication)	D. Number of graduates last schoolyear (Indication)
VET Schools	Yes	300 (school year 2016-2017)	/

#### Question 3.4

Are labour market actors involved in the learning process for this qualification? **Yes/No**

If yes, please specify

Labour market actor	Involved in
Enterprises/Employers/Instructors	Realisation of professional practice (practical teaching)

Block IV: Assessment<sup>26</sup>

#### Question 4.1

Who is responsible for the assessment for this qualification?

Task	Responsible party		
	The education/training provider	External examination institute / centre	Other ....
Development of exams		X (IIE)	
Organisation of exams	X (VET school)		
Grading exams			X (mixed examination commission)

#### Question 4.2

Who are the assessors?

Assessors	Tick the appropriate and give details
Teachers / trainers	/
Professionals (external)	/
Mixed jury	Examination commissions consist of three members, two teachers and one external professional.
Other	/

#### Question 4.3

Are external professionals involved in the assessment of skills and competences for this qualification? **Yes / No**

If yes please specify:

<sup>26</sup> These questions are about the summative assessment that someone has to pass to receive a certificate.



External professionals	Involved in
Relevant representative of employers nominated by the Chamber of commerce or Union of Employers.	Assessment process of practical work on Vocational Matura. Practical work is part of Vocational Matura at the end of 4 year education. Practical work is for assessing (professional) competencies as defined in QS.

#### Question 4.4

What is the assessment based on?

Assessment based on	Yes / No
Assessment standards/criteria	Yes/ Assessment standards are based on LO
Learning outcomes	Yes
Curriculum	Yes
Other	

#### Question 4.5

What types of assessment are used?

Types of assessment	Yes / No
Written theory exam	/
Oral theory exam	/
Study case	/
Practical exam in school or training centre	Yes/Practical exam is carried out in the school or in the company depending on fulfilment of conditions for realisation of the exam.
Practical exam in company	Yes/ If there is cooperation agreement with the company and there are fulfilled condition for the realisation of the exam
Other	/

#### Question 4.6

What is the percentage of practical assessment of skills and competences for this qualification?

Tick the right box.

Percentage of practical assessment of skills and competences	Comments
0-10%	
10-40%	
50-70%	

➤ 70%	VET Final Exam consists of practical work that is providing the bases for competency assessment.
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## Block V: Certification

### Question 5.1

Who awards (issues) the diploma/certificate for this qualification?

Diploma / Certificate issued by:	Comments
Diploma is issued by the VET school	This is regulated by the Law.

### Question 5.2

Which authority provides accreditation/recognition for this qualification?

Diploma / Certificate accredited / recognised by:	Comments
This qualification is part of formal education system.	Ministry is accrediting providers (VET schools).

### Question 5.3

Is this qualification, or its standards published / inserted in a Registry, Database, Catalogue supported by public institutions, or / and by sectoral bodies / chambers? **Yes/ no**

Specify which. Link / URL

The qualification is published in the Official Gazette – Education Gazette of the Republic of Serbia.

### Question 5.4

Which is the quality assurance confirmation of the Qualification? **Yes**

Any brand, reference, certification.

The qualification is approved and adopted by the Council for Vocational and Adult Education and schools are verified for the realisation/teaching of the qualification.

Row number in Inventory	Title of Qualification	Translated title (EN)	Qualification type	NQF level
224	Финансијски администратор	Financial Administrator	Formal	4

## Block I: Relevance for the labour market

### Question 1.1

How is the relevance / linkage of this qualification to the labour market / employment ensured?

Indicators:	Evidence
Labour market research	
Employers view / opinions	Obtained through DACUM expert group (employers and practitioners). DACUM map and list of participants. Institute for Improvement of Education (IIE)
Job vacancies	
Other	Members of Council for Vocational and Adult education are representatives of social partners, and the Council proposes to the Minister list of qualifications (education profiles).

### Question 1.2

Which occupations are accessible for the holder of this qualification?

*Note: a qualification can be relevant for a number of different functions / jobs.*

Occupations	Evidence (legislation, labour market practise, agreements, others)
Финансијски администратор (Financial Administrator) Occupations are not listed.	Rule book on teaching plan and programme, Official Gazette – Education Gazette, no. 14/04, 11/05, 17/06, 18/07, 1/08, 10/12, 1/13 and 15/15)

### Question 1.3

Are labour market actors<sup>27</sup> involved in defining training needs for this qualification? **Yes** / No

If yes, specify:

Labour market actors	Involved in
Employers and practitioners	DACUM process of work (occupation) analyses.  As members of Council for Vocational and Adult Education they define need for the qualification and as members of curriculum development teams they are defining training needs for the qualification.

## Block II: Standards and structure

### Question 2.1

What types of standards are behind the qualification?

Type of standards	Yes/No	Who was responsible for the development?
Occupational standards	Yes	Work description is integral part of Qualification Standard and curriculum that are been developed by Institute for Improvement of

<sup>27</sup> Examples of labour market actors are: employers, enterprises, employers organisations, trade unions

		Education.
Educational standards	Yes	Learning outcomes are integral part of Qualification Standard that is been developed by Institute for Improvement of Education.
Assessment standards	Yes	Rulebook on student assessment in secondary education; VET Matura manual (Institute for Improvement of Education)
Other; namely :		

### Question 2.2

**Please check the interconnection / coherence between:** Occupational standards, qualification standards and the linked programmes (curricula).

Qualification Standard contains work description (occupation standards), which is the bases for defining LO and development of teaching programme (curriculum). There is direct and evident link between these elements in relevant qualifications' documents.

### Question 2.3

How are labour market actors involved in defining standards and ensuring that standards follow the evolutions in the sector?

Standards	Involvement labour market actors
Occupational standards	In DACUM method
Educational standards	/
Assessment standards	/
Other ; namely :	/

### Question 2.4

Are standard periodically modified?

Standards	How often modified?
Occupational standards	/
Educational standards	/
Assessment standards	/
Other ; namely :	The standards are subject of the revision in the period of piloting and introduction into system. Once this process is completed and the qualifications are mainstreamed into system there is no systematic approach or obligation for modification or revision of these standards.

### Question 2.5

Is this a full qualification or a partial qualification? **Full** / partial

Specify based on documentation.

This is formal qualification and part of initial VET. The draft NQF document does not foreseen the partial qualification as such.

### Question 2.6

Is the qualification structured in units? **Yes / No**

Specify based on documentation

Qualification Standard contains competencies and competence units. The Teaching plan and programme for the qualification contains subjects and modules (Official Gazette RS, Education Gazette, no.10/12).

Block III: Learning process

### Question 3.1

What is the target group for this qualification?

Target group	Yes / No
Young people in full-time education	Yes
Workers / CVET	/
Unemployed	/
Other	

### Question 3.2

(Answer in table below)

- What is/are the learning path(s) for this qualification?
- What is the percentage of practical training in each learning path?
- What is the average duration of the education / training leading to the certificate?
- What are entry requirements?

A. Learning path	Yes /No	B. Practical training in %	C. Average duration	D. Entry requirement
School based	Yes	2773/180 <sup>28</sup>	4 years	Elementary education
Work based	No			
Mix of school/work based	No			
Other	/			

### Question 3.3

(Answer in table below)

- Which (type of) providers offer education/training programs for this qualification?
- Are these providers accredited?
- What is the number of new learners enrolled in these education/training programs in the last schoolyear?
- What is the number of graduates from these in the last schoolyear?

<sup>28</sup> Out of 2773 professional/vocational subjects' classes, 180 are realised as practical teaching and "block" teaching (professional practice). The overall number of classes does not include general education subjects. The practical training number does not include professional/vocational subject exercises (1060) classes.

A. (Type of) provider	B. Accredited yes / No	C. Number of new learners last schoolyear (indication)	D. Number of graduates last schoolyear (Indication)
VET Schools	Yes	1454 (school year 2016-2017)	/

#### Question 3.4

Are labour market actors involved in the learning process for this qualification? **Yes/No**

If yes, please specify

Labour market actor	Involved in
Enterprises/Employers/Instructors	Realisation of professional practice (practical teaching)

Block IV: Assessment<sup>29</sup>

#### Question 4.1

Who is responsible for the assessment for this qualification?

Task	Responsible party		
	The education/training provider	External examination institute / centre	Other ....
Development of exams		X (IIE)	
Organisation of exams	X (VET school)		
Grading exams			X (mixed examination commission)

#### Question 4.2

Who are the assessors?

Assessors	Tick the appropriate and give details
Teachers / trainers	/
Professionals (external)	/
Mixed jury	Examination commissions consist of three members, two teachers and one external professional.
Other	/

#### Question 4.3

Are external professionals involved in the assessment of skills and competences for this qualification? **Yes / No**

If yes please specify:

External professionals	Involved in
Relevant representative of employers	Assessment process of practical work on Vocational

<sup>29</sup> These questions are about the summative assessment that someone has to pass to receive a certificate.

nominated by the Chamber of commerce or Union of Employers.	Matura. Practical work is part of Vocational Matura at the end of 4 year education. Practical work is for assessing (professional) competencies as defined in QS.
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#### Question 4.4

What is the assessment based on?

Assessment based on	Yes / No
Assessment standards/criteria	Yes/ Assessment standards are based on LO
Learning outcomes	Yes
Curriculum	Yes
Other	

#### Question 4.5

What types of assessment are used?

Types of assessment	Yes / No
Written theory exam	Yes
Oral theory exam	/
Study case	/
Practical exam in school or training centre	Yes/Practical exam is carried out in the school or in the company depending on fulfilment of conditions for realisation of the exam.
Practical exam in company	Yes/ If there is cooperation agreement with the company and there are fulfilled condition for the realisation of the exam
Other	/

#### Question 4.6

What is the percentage of practical assessment of skills and competences for this qualification?

Tick the right box.

Percentage of practical assessment of skills and competences	Comments
0-10%	
10-40%	The VET Matura exam consists of three exams: mother tongue, knowledge test and practical work (1/3).
50-70%	
➤ 70%	

## Block V: Certification

### Question 5.1

Who awards (issues) the diploma/certificate for this qualification?

Diploma / Certificate issued by:	Comments
Diploma is issued by the VET school	This is regulated by the Law.

### Question 5.2

Which authority provides accreditation/recognition for this qualification?

Diploma / Certificate accredited / recognised by:	Comments
This qualification is part of formal education system.	Ministry is accrediting providers (VET schools) that are issuing the Diploma.

### Question 5.3

Is this qualification, or its standards published / inserted in a Registry, Database, Catalogue supported by public institutions, or / and by sectoral bodies / chambers? **Yes/ no**

Specify which. Link / URL

The qualification is published in the Official Gazette – Education Gazette of the Republic of Serbia.

### Question 5.4

Which is the quality assurance confirmation of the Qualification? Yes

Any brand, reference, certification.

The qualification is approved and adopted by the Council for Vocational and Adult Education and schools are verified for the realisation/teaching of the qualification.



Row number in Inventory	Title of Qualification	Translated title (EN)	Qualification type	NQF level
179	Архитектонски техничар	Architectural Technician	Formal	4

## Block I: Relevance for the labour market

### Question 1.1

How is the relevance / linkage of this qualification to the labour market / employment ensured?

Indicators:	Evidence
Labour market research	
Employers view / opinions	Obtained through DACUM expert group (employers and practitioners). DACUM map and list of participants. Institute for Improvement of Education (IIE)
Job vacancies	
Other	Members of Council for Vocational and Adult education are representatives of social partners, and the Council proposes to the Minister list of qualifications (education profiles).

### Question 1.2

Which occupations are accessible for the holder of this qualification?

*Note: a qualification can be relevant for a number of different functions / jobs.*

Occupations	Evidence (legislation, labour market practise, agreements, others)
Архитектонски техничар (Architectural Technician) Occupation are not listed	Rule book on teaching plan and programme, Official Gazette – Education Gazette, no. 13/07, 10/08, 3/10, 5/11, 2/12, 9/15 and 13/15)

### Question 1.3

Are labour market actors<sup>30</sup> involved in defining training needs for this qualification? **Yes** / No

If yes, specify:

Labour market actors	Involved in
Employers and practitioners	DACUM process of work (occupation) analyses.  As members of Council for Vocational and Adult Education they define need for the qualification and as members of curriculum development teams they are defining training needs for the qualification.

## Block II: Standards and structure

### Question 2.1

What types of standards are behind the qualification?

Type of standards	Yes/No	Who was responsible for the development?
Occupational standards	Yes	Work description is integral part of Qualification Standard that is been developed by Institute for Improvement of Education.

<sup>30</sup> Examples of labour market actors are: employers, enterprises, employers organisations, trade unions

Educational standards	Yes	Learning outcomes are integral part of Qualification Standard and curriculum that are been developed by Institute for Improvement of Education.
Assessment standards	Yes	Rulebook on student assessment in secondary education; VET Matura manual (Institute for Improvement of Education)
Other; namely :		

### Question 2.2

**Please check the interconnection / coherence between:** Occupational standards, qualification standards and the linked programmes (curricula).

Qualification Standard contains work description (occupation standards), which is the bases for defining LO and development of teaching programme (curriculum). There is direct and evident link between these elements in relevant qualifications' documents

### Question 2.3

How are labour market actors involved in defining standards and ensuring that standards follow the evolutions in the sector?

Standards	Involvement labour market actors
Occupational standards	In DACUM method
Educational standards	/
Assessment standards	/
Other ; namely :	/

### Question 2.4

Are standard periodically modified?

Standards	How often modified?
Occupational standards	/
Educational standards	/
Assessment standards	/
Other ; namely :	The standards are subject of the revision in the period of piloting and introduction into system. Once this process is completed and the qualifications are mainstreamed into system there is no systematic approach or obligation for modification or revision of these standards.

### Question 2.5

Is this a full qualification or a partial qualification? **Full** / partial

Specify based on documentation.

This is formal qualification and part of initial VET. The draft NQF document does not foreseen the partial qualification as such.

### Question 2.6

Is the qualification structured in units? **Yes / No**

Specify based on documentation

Qualification Standard contains competencies and competence units. The Teaching plan and programme for the qualification contains subjects and modules (Official Gazette RS, Education Gazette, no. 9/15).

Block III: Learning process

### Question 3.1

What is the target group for this qualification?

Target group	Yes / No
Young people in full-time education	Yes
Workers / CVET	/
Unemployed	/
Other	

### Question 3.2

(Answer in table below)

- What is/are the learning path(s) for this qualification?
- What is the percentage of practical training in each learning path?
- What is the average duration of the education / training leading to the certificate?
- What are entry requirements?

A. Learning path	Yes /No	B. Practical training in %	C. Average duration	D. Entry requirement
School based	Yes	2653/330 <sup>31</sup>	4 years	Elementary education
Work based	No			
Mix of school/work based	No			
Other	/			

### Question 3.3

(Answer in table below)

- Which (type of) providers offer education/training programs for this qualification?
- Are these providers accredited?
- What is the number of new learners enrolled in these education/training programs in the last schoolyear?
- What is the number of graduates from these in the last schoolyear?

<sup>31</sup> Out of 2790 professional/vocational subjects' classes, 330 are realised as practical teaching and "block" teaching (professional practice). The overall number of classes does not include general education subjects. The practical training number does not include professional/vocational subject exercises (1359) classes.

A. (Type of) provider	B. Accredited yes / No	C. Number of new learners last schoolyear (indication)	D. Number of graduates last schoolyear (Indication)
VET Schools	Yes	1030 (school year 2016-2017)	/

### Question 3.4

Are labour market actors involved in the learning process for this qualification? **Yes/No**

If yes, please specify

Labour market actor	Involved in
Enterprises/Employers/Instructors	Realisation of professional practice (practical teaching)

Block IV: Assessment<sup>32</sup>

### Question 4.1

Who is responsible for the assessment for this qualification?

Task	Responsible party		
	The education/training provider	External examination institute / centre	Other ....
Development of exams		X (IIE)	
Organisation of exams	X (VET school)		
Grading exams			X (mixed examination commission)

### Question 4.2

Who are the assessors?

Assessors	Tick the appropriate and give details
Teachers / trainers	/
Professionals (external)	/
Mixed jury	Examination commissions consist of three members, two teachers and one external professional.
Other	/

### Question 4.3

Are external professionals involved in the assessment of skills and competences for this qualification? **Yes / No**

If yes please specify:

External professionals	Involved in
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<sup>32</sup> These questions are about the summative assessment that someone has to pass to receive a certificate.

Relevant representative of employers nominated by the Chamber of commerce or Union of Employers.	Assessment process of practical work on Vocational Matura. Practical work is part of Vocational Matura at the end of 4 year education. Practical work is for assessing (professional) competencies as defined in QS.
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#### Question 4.4

What is the assessment based on?

Assessment based on	Yes / No
Assessment standards/criteria	Yes/ Assessment standards are based on LO
Learning outcomes	Yes
Curriculum	Yes
Other	

#### Question 4.5

What types of assessment are used?

Types of assessment	Yes / No
Written theory exam	Yes
Oral theory exam	/
Study case	/
Practical exam in school or training centre	Yes/Practical exam is carried out in the school or in the company depending on fulfilment of conditions for realisation of the exam.
Practical exam in company	Yes/ If there is cooperation agreement with the company and there are fulfilled condition for the realisation of the exam
Other	/

#### Question 4.6

What is the percentage of practical assessment of skills and competences for this qualification?

Tick the right box.

Percentage of practical assessment of skills and competences	Comments
0-10%	
10-40%	The VET Matura exam consists of three exams: mother tongue, knowledge test and practical work (1/3).
50-70%	

➤ 70%

## Block V: Certification

### Question 5.1

Who awards (issues) the diploma/certificate for this qualification?

Diploma / Certificate issued by:	Comments
Diploma is issued by the VET school	This is regulated by the Law.

### Question 5.2

Which authority provides accreditation/recognition for this qualification?

Diploma / Certificate accredited / recognised by:	Comments
This qualification is part of formal education system.	Ministry is accrediting providers (VET schools) that are issuing the Diploma..

### Question 5.3

Is this qualification, or its standards published / inserted in a Registry, Database, Catalogue supported by public institutions, or / and by sectoral bodies / chambers? **Yes/ no**

Specify which. Link / URL

The qualification is published in the Official Gazette – Education Gazette of the Republic of Serbia.

### Question 5.4

Which is the quality assurance confirmation of the Qualification? Yes

Any brand, reference, certification.

The qualification is approved and adopted by the Council for Vocational and Adult Education and schools are verified for the realisation/teaching of the qualification.

Row number in Inventory	Title of Qualification	Translated title (EN)	Qualification type	NQF level
190	Монтер суве градње	Dry Construction Fitter	Formal	3

## Block I: Relevance for the labour market

### Question 1.1

How is the relevance / linkage of this qualification to the labour market / employment ensured?

Indicators:	Evidence
Labour market research	
Employers view / opinions	Obtained through Functional analyses and Verification done by the Institute for Improvement of Education (IIE)
Job vacancies	
Other	Members of Council for Vocational and Adult education are representatives of social partners, and the Council proposes to the Minister list of qualifications (education profiles).

### Question 1.2

Which occupations are accessible for the holder of this qualification?

*Note: a qualification can be relevant for a number of different functions / jobs.*

Occupations	Evidence (legislation, labour market practise, agreements, others)
Монтер суве градње (Dry Construction Fitter) Occupations are not listed	Rule book on teaching plan and programme, Official Gazette – Education Gazette, no. 4/04, 12/04, 8/06, 3/07, 11/05, 5/11, 6/14, 7/14, 08/14, 13/15, 18/15, 2/16)

### Question 1.3

Are labour market actors<sup>33</sup> involved in defining training needs for this qualification? **Yes / No**

If yes, specify:

Labour market actors	Involved in
Employers and practitioners	As members of Council for Vocational and Adult Education they define need for the qualification and as members of curriculum development teams they are defining training needs for the qualification.

## Block II: Standards and structure

### Question 2.1

What types of standards are behind the qualification?

Type of standards	Yes/No	Who was responsible for the development?
Occupational standards	Yes	Work description is integral part of Qualification Standard that is been developed by Institute for Improvement of Education.
Educational standards	Yes	Learning outcomes are integral part of Qualification Standard and in curriculum that are

<sup>33</sup> Examples of labour market actors are: employers, enterprises, employers organisations, trade unions

		been developed by Institute for Improvement of Education.
Assessment standards	Yes	Rulebook on student assessment in secondary education; Final exam manual (Institute for Improvement of Education)
Other; namely :		

### Question 2.2

**Please check the interconnection / coherence between:** Occupational standards, qualification standards and the linked programmes (curricula).

Qualification Standard contains work description (occupation standards), which is the bases for defining LO and development of teaching programme (curriculum). There is direct and evident link between these elements in relevant qualifications' documents.

### Question 2.3

How are labour market actors involved in defining standards and ensuring that standards follow the evolutions in the sector?

Standards	Involvement labour market actors
Occupational standards	Participation in the verification of work description
Educational standards	/
Assessment standards	/
Other ; namely :	/

### Question 2.4

Are standard periodically modified?

Standards	How often modified?
Occupational standards	/
Educational standards	/
Assessment standards	/
Other ; namely :	The standards are subject of the revision in the period of piloting and introduction into system. Once this process is completed and the qualifications are mainstreamed into system there is no systematic approach or obligation for modification or revision of these standards.

### Question 2.5

Is this a full qualification or a partial qualification? **Full** / partial

Specify based on documentation.

This is formal qualification and part of initial VET. The draft NQF document does not foreseen the partial qualification as such.

### Question 2.6

Is the qualification structured in units? **Yes** / No



Specify based on documentation

Qualification Standard contains competencies and competence units. The Teaching plan and programme for the qualification contains subjects and modules (Official Gazette RS, Education Gazette, no. 6/14).

### Block III: Learning process

#### Question 3.1

What is the target group for this qualification?

Target group	Yes / No
Young people in full-time education	Yes
Workers / CVET	/
Unemployed	/
Other	

#### Question 3.2

(Answer in table below)

- What is/are the learning path(s) for this qualification?
- What is the percentage of practical training in each learning path?
- What is the average duration of the education / training leading to the certificate?
- What are entry requirements?

A. Learning path	Yes /No	B. Practical training in %	C. Average duration	D. Entry requirement
School based	Yes	2290/1210 <sup>34</sup>	3 years	Elementary education
Work based	No			
Mix of school/work based	No			
Other	/			

#### Question 3.3

(Answer in table below)

- Which (type of) providers offer education/training programs for this qualification?
- Are these providers accredited?
- What is the number of new learners enrolled in these education/training programs in the last schoolyear?
- What is the number of graduates from these in the last schoolyear?

A. (Type of)	B. Accredited	C. Number of new learners last schoolyear	D. Number of graduates last
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<sup>34</sup> Out of 2290 professional/vocational subjects' classes, 1210 are realised as practical teaching and "block" teaching (professional practice). The overall number of classes does not include general education subjects. The practical training number does not include professional/vocational subject exercises classes (538).

provider	yes / No	(indication)	schoolyear (Indication
VET Schools	Yes	30 (school year 2016-2017)	/

#### Question 3.4

Are labour market actors involved in the learning process for this qualification? **Yes/No**

If yes, please specify

Labour market actor	Involved in
Enterprises/Employers/Instructors	Realisation of professional practice (practical teaching)

#### Block IV: Assessment<sup>35</sup>

#### Question 4.1

Who is responsible for the assessment for this qualification?

Task	Responsible party		
	The education/training provider	External examination institute / centre	Other ....
Development of exams		X (IIE)	
Organisation of exams	X (VET school)		
Grading exams			X (mixed examination commission)

#### Question 4.2

Who are the assessors?

Assessors	Tick the appropriate and give details
Teachers / trainers	/
Professionals (external)	/
Mixed jury	Examination commissions consist of three members, two teachers and one external professional.
Other	/

#### Question 4.3

Are external professionals involved in the assessment of skills and competences for this qualification? **Yes / No**

If yes please specify:

External professionals	Involved in
Relevant representative of employers nominated by the Chamber of commerce or Union of Employers.	Assessment process of practical work on Vocational Final Exam. Practical work is for assessing (professional) competencies as defined in QS.

<sup>35</sup> These questions are about the summative assessment that someone has to pass to receive a certificate.

#### Question 4.4

What is the assessment based on?

Assessment based on	Yes / No
Assessment standards/criteria	Yes/ Assessment standards are based on LO
Learning outcomes	Yes
Curriculum	Yes
Other	

#### Question 4.5

What types of assessment are used?

Types of assessment	Yes / No
Written theory exam	/
Oral theory exam	/
Study case	/
Practical exam in school or training centre	Yes/Practical exam is carried out in the school or in the company depending on fulfilment of conditions for realisation of the exam.
Practical exam in company	Yes/ If there is cooperation agreement with the company and there are fulfilled condition for the realisation of the exam
Other	/

#### Question 4.6

What is the percentage of practical assessment of skills and competences for this qualification?

Tick the right box.

Percentage of practical assessment of skills and competences	Comments
0-10%	
10-40%	
50-70%	
➤ 70%	VET Final Exam consists of practical work that is providing the bases for competency assessment.

### Block V: Certification

#### Question 5.1

Who awards (issues) the diploma/certificate for this qualification?

Diploma / Certificate issued by:	Comments
Diploma is issued by the VET school	This is regulated by the Law.

### Question 5.2

Which authority provides accreditation/recognition for this qualification?

Diploma / Certificate accredited / recognised by:	Comments
This qualification is part of formal education system.	Ministry is accrediting providers (VET schools).

### Question 5.3

Is this qualification, or its standards published / inserted in a Registry, Database, Catalogue supported by public institutions, or / and by sectoral bodies / chambers? **Yes/ no**

Specify which. Link / URL

The qualification is published in the Official Gazette – Education Gazette of the Republic of Serbia.

### Question 5.4

Which is the quality assurance confirmation of the Qualification? Yes

Any brand, reference, certification.

The qualification is approved and adopted by the Council for Vocational and Adult Education and schools are verified for the realisation/teaching of the qualification.

Row number in Inventory	Title of Qualification	Translated title (EN)	Qualification type	NQF level
33	Техничар за обликовање намештаја и ентеријера	Technician For Furniture And Interior Design	Formal	4

## Block I: Relevance for the labour market

### Question 1.1

How is the relevance / linkage of this qualification to the labour market / employment ensured?

Indicators:	Evidence
Labour market research	
Employers view / opinions	Obtained through DACUM expert group (employers and practitioners). DACUM map and list of participants. Institute for Improvement of Education (IIE)
Job vacancies	
Other	Members of Council for Vocational and Adult education are representatives of social partners, and the Council proposes to the Minister list of qualifications (education profiles).

### Question 1.2

Which occupations are accessible for the holder of this qualification?

*Note: a qualification can be relevant for a number of different functions / jobs.*

Occupations	Evidence (legislation, labour market practise, agreements, others)
Техничар за обликовање намештаја и ентеријера (Technician For Furniture And Interior Design) Occupations are not listed	Rule book on teaching plan and programme, Official Gazette – Education Gazette, no. 8/05, 15/06, 1/08, 8/09, 9/14, 6/15, 16/15 , 3/16)

### Question 1.3

Are labour market actors<sup>36</sup> involved in defining training needs for this qualification? **Yes** / No

If yes, specify:

Labour market actors	Involved in
Employers and practitioners	DACUM process of work (occupation) analyses.  As members of Council for Vocational and Adult Education they define need for the qualification and as members of curriculum development teams they are defining training needs for the qualification.

## Block II: Standards and structure

### Question 2.1

What types of standards are behind the qualification?

Type of standards	Yes/No	Who was responsible for the development?
Occupational standards	Yes	Work description is integral part of Qualification

<sup>36</sup> Examples of labour market actors are: employers, enterprises, employers organisations, trade unions

		Standard that is been developed by Institute for Improvement of Education.
Educational standards	Yes	Learning outcomes are integral part of Qualification Standard and curriculum that are been developed by Institute for Improvement of Education.
Assessment standards	Yes	Rulebook on student assessment in secondary education; VET Matura manual (Institute for Improvement of Education)
Other; namely :		

### Question 2.2

**Please check the interconnection / coherence between:** Occupational standards, qualification standards and the linked programmes (curricula).

Qualification Standard contains work description (occupation standards), which is the bases for defining LO and development of teaching programme (curriculum). There is direct and evident link between these elements in relevant qualifications' documents.

### Question 2.3

How are labour market actors involved in defining standards and ensuring that standards follow the evolutions in the sector?

Standards	Involvement labour market actors
Occupational standards	In DACUM method
Educational standards	/
Assessment standards	/
Other ; namely :	/

### Question 2.4

Are standard periodically modified?

Standards	How often modified?
Occupational standards	/
Educational standards	/
Assessment standards	/
Other ; namely :	The standards are subject of the revision in the period of piloting and introduction into system. Once this process is completed and the qualifications are mainstreamed into system there is no systematic approach or obligation for modification or revision of these standards.

### Question 2.5

Is this a full qualification or a partial qualification? **Full** / partial

Specify based on documentation.

This is formal qualification and part of initial VET. The draft NQF document does not foreseen the partial qualification as such.

#### Question 2.6

Is the qualification structured in units? **Yes / No**

Specify based on documentation

Qualification Standard contains competencies and competence units. The Teaching plan and programme for the qualification contains subjects and modules (Official Gazette RS, Education Gazette, no. 3/16).

#### Block III: Learning process

#### Question 3.1

What is the target group for this qualification?

Target group	Yes / No
Young people in full-time education	Yes
Workers / CVET	/
Unemployed	/
Other	

#### Question 3.2

(Answer in table below)

- A. What is/are the learning path(s) for this qualification?
- B. What is the percentage of practical training in each learning path?
- C. What is the average duration of the education / training leading to the certificate?
- D. What are entry requirements?

A. Learning path	Yes /No	B. Practical training in %	C. Average duration	D. Entry requirement
School based	Yes	2733/678 <sup>37</sup>	4 years	Elementary education
Work based	No			
Mix of school/work based	No			
Other	/			

#### Question 3.3

(Answer in table below)

- A. Which (type of) providers offer education/training programs for this qualification?
- B. Are these providers accredited?

<sup>37</sup> Out of 2733 professional/vocational subjects' classes, 678 are realised as practical teaching and "block" teaching (professional practice). The overall number of classes does not include general education subjects. The practical training number does not include professional/vocational subject exercises classes (1536/1662 depending on elective subject student chooses).

- C. What is the number of new learners enrolled in these education/training programs in the last schoolyear?
- D. What is the number of graduates from these in the last schoolyear?

A. (Type of) provider	B. Accredited yes / No	C. Number of new learners last schoolyear (indication)	D. Number of graduates last schoolyear (Indication)
VET Schools	Yes	240 (school year 2016-2017)	/

### Question 3.4

Are labour market actors involved in the learning process for this qualification? **Yes/No**

If yes, please specify

Labour market actor	Involved in
Enterprises/Employers/Instructors	Realisation of professional practice (practical teaching)

Block IV: Assessment<sup>38</sup>

### Question 4.1

Who is responsible for the assessment for this qualification?

Task	Responsible party		
	The education/training provider	External examination institute / centre	Other ....
Development of exams		X (IIE)	
Organisation of exams	X (VET school)		
Grading exams			X (mixed examination commission)

### Question 4.2

Who are the assessors?

Assessors	Tick the appropriate and give details
Teachers / trainers	/
Professionals (external)	/
Mixed jury	Examination commissions consist of three members, two teachers and one external professional.
Other	/

### Question 4.3

Are external professionals involved in the assessment of skills and competences for this qualification? **Yes / No**

<sup>38</sup> These questions are about the summative assessment that someone has to pass to receive a certificate.



If yes please specify:

External professionals	Involved in
Relevant representative of employers nominated by the Chamber of commerce or Union of Employers.	Assessment process of practical work on Vocational Matura. Practical work is part of Vocational Matura at the end of 4 year education. Practical work is for assessing (professional) competencies as defined in QS.

#### Question 4.4

What is the assessment based on?

Assessment based on	Yes / No
Assessment standards/criteria	Yes/ Assessment standards are based on LO
Learning outcomes	Yes
Curriculum	Yes
Other .....	

#### Question 4.5

What types of assessment are used?

Types of assessment	Yes / No
Written theory exam	Yes
Oral theory exam	/
Study case	/
Practical exam in school or training centre	Yes/Practical exam is carried out in the school or in the company depending on fulfilment of conditions for realisation of the exam.
Practical exam in company	Yes/ If there is cooperation agreement with the company and there are fulfilled condition for the realisation of the exam
Other	/

#### Question 4.6

What is the percentage of practical assessment of skills and competences for this qualification?

Tick the right box.

Percentage of practical assessment of skills and competences	Comments
0-10%	
10-40%	The VET Matura exam consists of three exams: mother

	tongue, knowledge test and practical work (1/3).
50-70%	
➤ 70%	

## Block V: Certification

### Question 5.1

Who awards (issues) the diploma/certificate for this qualification?

Diploma / Certificate issued by:	Comments
Diploma is issued by the VET school	This is regulated by the Law.

### Question 5.2

Which authority provides accreditation/recognition for this qualification?

Diploma / Certificate accredited / recognised by:	Comments
This qualification is part of formal education system.	Ministry is accrediting providers (VET schools) that are issuing the Diploma.

### Question 5.3

Is this qualification, or its standards published / inserted in a Registry, Database, Catalogue supported by public institutions, or / and by sectoral bodies / chambers? **Yes/ no**

Specify which. Link / URL

The qualification is published in the Official Gazette – Education Gazette of the Republic of Serbia.

### Question 5.4

Which is the quality assurance confirmation of the Qualification? Yes

Any brand, reference, certification.

The qualification is approved and adopted by the Council for Vocational and Adult Education and schools are verified for the realisation/teaching of the qualification.

Row number in Inventory	Title of Qualification	Translated title (EN)	Qualification type	NQF level
40	Столар	Carpenter	Formal	3

## Block I: Relevance for the labour market

### Question 1.1

How is the relevance / linkage of this qualification to the labour market / employment ensured?

Indicators:	Evidence
Labour market research	
Employers view / opinions	Obtained through DACUM expert group (employers and practitioners). DACUM map and list of participants. Institute for Improvement of Education (IIE)
Job vacancies	
Other	Members of Council for Vocational and Adult education are representatives of social partners, and the Council proposes to the Minister list of qualifications (education profiles).

### Question 1.2

Which occupations are accessible for the holder of this qualification?

*Note: a qualification can be relevant for a number of different functions / jobs.*

Occupations	Evidence (legislation, labour market practise, agreements, others)
Столар (Carpenter) Occupations are not listed.	Rule book on teaching plan and programme, Official Gazette – Education Gazette, no. 8/05, 15/06, 1/08, 9/14, 16/15 and 3/16)

### Question 1.3

Are labour market actors<sup>39</sup> involved in defining training needs for this qualification? **Yes / No**

If yes, specify:

Labour market actors	Involved in
Employers and practitioners	DACUM process of work (occupation) analyses.

## Block II: Standards and structure

### Question 2.1

What types of standards are behind the qualification?

Type of standards	Yes/No	Who was responsible for the development?
Occupational standards	Yes	Work description is integral part of Qualification Standard that is been developed by Institute for Improvement of Education.
Educational standards	Yes	Learning outcomes are integral part of Qualification Standard and curriculum that are been developed by Institute for Improvement of Education.
Assessment standards	Yes	Rulebook on student assessment in secondary education; Final exam manual (Institute for

<sup>39</sup> Examples of labour market actors are: employers, enterprises, employers organisations, trade unions

		Improvement of Education)
Other; namely :		

### Question 2.2

**Please check the interconnection / coherence between:** Occupational standards, qualification standards and the linked programmes (curricula).

Qualification Standard contains work description (occupation standards), which is the bases for defining LO and development of teaching programme (curriculum). There is direct and evident link between these elements in relevant qualifications' documents.

### Question 2.3

How are labour market actors involved in defining standards and ensuring that standards follow the evolutions in the sector?

Standards	Involvement labour market actors
Occupational standards	In DACUM method
Educational standards	/
Assessment standards	/
Other ; namely :	/

### Question 2.4

Are standard periodically modified?

Standards	How often modified?
Occupational standards	/
Educational standards	/
Assessment standards	/
Other ; namely :	The standards are subject of the revision in the period of piloting and introduction into system. Once this process is completed and the qualifications are mainstreamed into system there is no systematic approach or obligation for modification or revision of these standards.

### Question 2.5

Is this a full qualification or a partial qualification? **Full** / partial

Specify based on documentation.

This is formal qualification and part of initial VET. The draft NQF document does not foreseen the partial qualification as such.

### Question 2.6

Is the qualification structured in units? **Yes** / No

Specify based on documentation

Qualification Standard contains competencies and competence units. The Teaching plan and programme for the qualification contains subjects and modules (Official Gazette RS, Education Gazette, no. 9/14).

Block III: Learning process

### Question 3.1

What is the target group for this qualification?

Target group	Yes / No
Young people in full-time education	Yes
Workers / CVET	/
Unemployed	/
Other	

### Question 3.2

(Answer in table below)

- A. What is/are the learning path(s) for this qualification?
- B. What is the percentage of practical training in each learning path?
- C. What is the average duration of the education / training leading to the certificate?
- D. What are entry requirements?

A. Learning path	Yes /No	B. Practical training in %	C. Average duration	D. Entry requirement
School based	Yes	2328/1230 <sup>40</sup>	3 years	Elementary education
Work based	No			
Mix of school/work based	No			
Other	/			

### Question 3.3

(Answer in table below)

- A. Which (type of) providers offer education/training programs for this qualification?
- B. Are these providers accredited?
- C. What is the number of new learners enrolled in these education/training programs in the last schoolyear?
- D. What is the number of graduates from these in the last schoolyear?

A. (Type of) provider	B. Accredited yes / No	C. Number of new learners last schoolyear (indication)	D. Number of graduates last schoolyear (Indication)
VET Schools	Yes	117 (school year 2016-2017)	/

### Question 3.4

<sup>40</sup> Out of 2328 professional/vocational subjects' classes, 1230 are realised as practical teaching and "block" teaching (professional practice). The overall number of classes does not include general education subjects. The practical training number does not include professional/vocational subject exercises classes (594).

Are labour market actors involved in the learning process for this qualification? **Yes/No**

If yes, please specify

**Labour market actor**

**Involved in**

Enterprises/Employers/Instructors Realisation of professional practice (practical teaching)

Block IV: Assessment<sup>41</sup>

#### Question 4.1

Who is responsible for the assessment for this qualification?

Task	Responsible party		
	The education/training provider	External examination institute / centre	Other ....
Development of exams		X (IIE)	
Organisation of exams	X (VET school)		
Grading exams			X (mixed examination commission)

#### Question 4.2

Who are the assessors?

Assessors	Tick the appropriate and give details
Teachers / trainers	/
Professionals (external)	/
Mixed jury	Examination commissions consist of three members, two teachers and one external professional.
Other	/

#### Question 4.3

Are external professionals involved in the assessment of skills and competences for this qualification? **Yes / No**

If yes please specify:

External professionals	Involved in
Relevant representative of employers nominated by the Chamber of commerce or Union of Employers.	Assessment process of practical work on Vocational Matura. Practical work is part of Vocational Matura at the end of 4 year education. Practical work is for assessing (professional) competencies as defined in QS.

#### Question 4.4

What is the assessment based on?

<sup>41</sup> These questions are about the summative assessment that someone has to pass to receive a certificate.

Assessment based on	Yes / No
Assessment standards/criteria	Yes/ Assessment standards are based on LO
Learning outcomes	Yes
Curriculum	Yes
Other	

#### Question 4.5

What types of assessment are used?

Types of assessment	Yes / No
Written theory exam	/
Oral theory exam	/
Study case	/
Practical exam in school or training centre	Yes/Practical exam is carried out in the school or in the company depending on fulfilment of conditions for realisation of the exam.
Practical exam in company	Yes/ If there is cooperation agreement with the company and there are fulfilled condition for the realisation of the exam
Other	/

#### Question 4.6

What is the percentage of practical assessment of skills and competences for this qualification?

Tick the right box.

Percentage of practical assessment of skills and competences	Comments
0-10%	
10-40%	
50-70%	
➤ 70%	VET Final Exam consists of practical work that is providing the bases for competency assessment.

#### Block V: Certification

#### Question 5.1

Who awards (issues) the diploma/certificate for this qualification?

Diploma / Certificate issued by:	Comments

Diploma is issued by the VET school	This is regulated by the Law.
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### Question 5.2

Which authority provides accreditation/recognition for this qualification?

Diploma / Certificate accredited / recognised by:	Comments
This qualification is part of formal education system.	Ministry is accrediting providers (VET schools).

### Question 5.3

Is this qualification, or its standards published / inserted in a Registry, Database, Catalogue supported by public institutions, or / and by sectoral bodies / chambers? **Yes/ no**

Specify which. Link / URL

The qualification is published in the Official Gazette – Education Gazette of the Republic of Serbia.

### Question 5.4

Which is the quality assurance confirmation of the Qualification? Yes

Any brand, reference, certification.

The qualification is approved and adopted by the Council for Vocational and Adult Education and schools are verified for the realisation/teaching of the qualification.



Row number in Inventory	Title of Qualification	Translated title (EN)	Qualification type	NQF level
124	Администратор рачунарских мрежа	Administrator of computer networks	Formal	4

## Block I: Relevance for the labour market

### Question 1.1

How is the relevance / linkage of this qualification to the labour market / employment ensured?

Indicators:	Evidence
Labour market research	
Employers view / opinions	Obtained through Functional analyses and research done by the Institute for Improvement of Education (IIE)
Job vacancies	
Other	Members of Council for Vocational and Adult education are representatives of social partners, and the Council proposes to the Minister list of qualifications (education profiles).

### Question 1.2

Which occupations are accessible for the holder of this qualification?

*Note: a qualification can be relevant for a number of different functions / jobs.*

Occupations	Evidence (legislation, labour market practise, agreements, others)
Администратор рачунарских мрежа (Administrator of computer networks) Occupations are not listed	Rule book on teaching plan and programme , Official Gazette – Education Gazette, no. 17/06, 23/07, 02/09, 3/10, 2/12, 1/13, 14/13, 10/14, 8/15, 14/15, 10/16)

### Question 1.3

Are labour market actors<sup>42</sup> involved in defining training needs for this qualification? **Yes** / No

If yes, specify:

Labour market actors	Involved in
Employers and practitioners	As members of Council for Vocational and Adult Education they define need for the qualification and as members of curriculum development teams they are defining training needs for the qualification.

## Block II: Standards and structure

### Question 2.1

What types of standards are behind the qualification?

Type of standards	Yes/No	Who was responsible for the development?
Occupational standards	Yes	Work description is integral part of Qualification Standard that is been developed by Institute for Improvement of Education.

<sup>42</sup> Examples of labour market actors are: employers, enterprises, employers organisations, trade unions

Educational standards	Yes	Learning outcomes are integral part of Qualification Standard and curriculum that are been developed by Institute for Improvement of Education.
Assessment standards	Yes	Rulebook on student assessment in secondary education; VET Matura manuals (Institute for Improvement of Education)
Other; namely :		

### Question 2.2

**Please check the interconnection / coherence between:** Occupational standards, qualification standards and the linked programmes (curricula). Qualification Standard contains work description (occupation standards), which is the bases for defining LO and development of teaching programme (curriculum). There is direct and evident link between these elements in relevant qualifications' documents.

### Question 2.3

How are labour market actors involved in defining standards and ensuring that standards follow the evolutions in the sector?

Standards	Involvement labour market actors
Occupational standards	Participation in the research and verification of work description
Educational standards	/
Assessment standards	/
Other ; namely :	/

### Question 2.4

Are standard periodically modified?

Standards	How often modified?
Occupational standards	/
Educational standards	/
Assessment standards	/
Other ; namely :	The standards are subject of the revision in the period of piloting and introduction into system. Once this process is completed and the qualifications are mainstreamed into system there is no systematic approach or obligation for modification or revision of these standards.

### Question 2.5

Is this a full qualification or a partial qualification? **Full** / partial

Specify based on documentation.

This is formal qualification and part of initial VET. The draft NQF document does not foreseen the partial qualification as such.

### Question 2.6

Is the qualification structured in units? **Yes / No**

Specify based on documentation

Qualification Standard contains competencies and competence units. The Teaching plan and programme for the qualification contains subjects and modules (Official Gazette RS, Education Gazette, no. 14/15).

Block III: Learning process

### Question 3.1

What is the target group for this qualification?

Target group	Yes / No
Young people in full-time education	Yes
Workers / CVET	/
Unemployed	/
Other	

### Question 3.2

(Answer in table below)

- A. What is/are the learning path(s) for this qualification?
- B. What is the percentage of practical training in each learning path?
- C. What is the average duration of the education / training leading to the certificate?
- D. What are entry requirements?

A. Learning path	Yes /No	B. Practical training in %	C. Average duration	D. Entry requirement
School based	Yes	2662/310 <sup>43</sup>	4 years	Elementary education
Work based	No			
Mix of school/work based	No			
Other	/			

### Question 3.3

(Answer in table below)

- A. Which (type of) providers offer education/training programs for this qualification?
- B. Are these providers accredited?
- C. What is the number of new learners enrolled in these education/training programs in the last schoolyear?
- D. What is the number of graduates from these in the last schoolyear?

A. (Type of)	B. Accredited	C. Number of new	D. Number of graduates
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<sup>43</sup> Out of 2662 professional/vocational subjects' classes, 310 are realised as practical teaching and "block" teaching (professional practice). The overall number of classes does not include general education subjects. The practical training number does not include professional/vocational subject exercises classes (1559).

provider	yes / No	learners last schoolyear (indication)	last schoolyear (Indication)
VET Schools	Yes	438 (school year 2016-2017)	/

### Question 3.4

Are labour market actors involved in the learning process for this qualification? **Yes/No**

If yes, please specify

Labour market actor	Involved in
Enterprises/Employers/Instructors	Realisation of professional practice (practical teaching)

### Block IV: Assessment<sup>44</sup>

### Question 4.1

Who is responsible for the assessment for this qualification?

Task	Responsible party		
	The education/training provider	External examination institute / centre	Other ....
Development of exams		X (IIE)	
Organisation of exams	X (VET school)		
Grading exams			X (mixed examination commission)

### Question 4.2

Who are the assessors?

Assessors	Tick the appropriate and give details
Teachers / trainers	/
Professionals (external)	/
Mixed jury	Examination commissions consist of three members, two teachers and one external professional.
Other .....	/

### Question 4.3

Are external professionals involved in the assessment of skills and competences for this qualification? **Yes / No**

If yes please specify:

External professionals	Involved in
Relevant representative of employers	Assessment process of practical work on Vocational

<sup>44</sup> These questions are about the summative assessment that someone has to pass to receive a certificate.

nominated by the Chamber of commerce or Union of Employers.	Matura. Practical work is part of Vocational Matura at the end of 4 year education. Practical work is for assessing (professional) competencies as defined in QS.
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#### Question 4.4

What is the assessment based on?

Assessment based on	Yes / No
Assessment standards/criteria	Yes/ Assessment standards are based on LO
Learning outcomes	Yes
Curriculum	Yes
Other	

#### Question 4.5

What types of assessment are used?

Types of assessment	Yes / No
Written theory exam	Yes
Oral theory exam	/
Study case	/
Practical exam in school or training centre	Yes/Practical exam is carried out in the school or in the company depending on fulfilment of conditions for realisation of the exam.
Practical exam in company	Yes/ If there is cooperation agreement with the company and there are fulfilled condition for the realisation of the exam
Other	/

#### Question 4.6

What is the percentage of practical assessment of skills and competences for this qualification?

Tick the right box.

Percentage of practical assessment of skills and competences	Comments
0-10%	
10-40%	The VET Matura exam consists of three exams: mother tongue, knowledge test and practical work (1/3).
50-70%	

➤ 70%	
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## Block V: Certification

### Question 5.1

Who awards (issues) the diploma/certificate for this qualification?

Diploma / Certificate issued by:	Comments
Diploma is issued by the VET school	This is regulated by the Law.

### Question 5.2

Which authority provides accreditation/recognition for this qualification?

Diploma / Certificate accredited / recognised by:	Comments
This qualification is part of formal education system.	Ministry is accrediting providers (VET schools) that are issuing the Diploma.

### Question 5.3

Is this qualification, or its standards published / inserted in a Registry, Database, Catalogue supported by public institutions, or / and by sectoral bodies / chambers? **Yes/ no**

Specify which. Link / URL

The qualification is published in the Official Gazette – Education Gazette of the Republic of Serbia.

### Question 5.4

Which is the quality assurance confirmation of the Qualification? **Yes**

Any brand, reference, certification.

The qualification is approved and adopted by the Council for Vocational and Adult Education and schools are verified for the realisation/teaching of the qualification.

Row number in Inventory	Title of Qualification	Translated title (EN)	Qualification type	NQF level
291	Пољопривредни механизатор – специјалиста	Specialist in agricultural mechanization	Formal	5

## Block I: Relevance for the labour market

### Question 1.1

How is the relevance / linkage of this qualification to the labour market / employment ensured?

Indicators:	Evidence
Labour market research	/
Employers view / opinions	Agreement with Enterprises for realisation of professional practice. Usually the specialisation is organised for the employees of one or more enterprise on their request and with their support.
Job vacancies	/
Other	/

### Question 1.2

Which occupations are accessible for the holder of this qualification?

*Note: a qualification can be relevant for a number of different functions / jobs.*

Occupations	Evidence (legislation, labour market practise, agreements, others)
Operater poljoprivredne mehanizacije-specijalista (Operator of agricultural machinery- specialist)	Rule book on teaching plan and programme, Official Gazette – Education Gazette, no. 17/97)

### Question 1.3

Are labour market actors<sup>45</sup> involved in defining training needs for this qualification? Yes / No

If yes, specify:

Labour market actors	Involved in
Employers and practitioners	Defining duties and work tasks <sup>46</sup> . Work description for this qualification is very detailed.

## Block II: Standards and structure

### Question 2.1

What types of standards are behind the qualification?

Type of standards	Yes/No	Who was responsible for the development?
Occupational standards	No	
Educational standards	Yes	Ministry for Education and/or Institute for the Improvement of Education
Assessment standards	No	

<sup>45</sup> Examples of labour market actors are: employers, enterprises, employers organisations, trade unions

<sup>46</sup> Групе послова и задатака.

Other; namely :	/	
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### Question 2.2

**Please check the interconnection / coherence between:** Occupational standards, qualification standards and the linked programmes (curricula).

There is a link between described duties and work tasks and curriculum.

### Question 2.3

How are labour market actors involved in defining standards and ensuring that standards follow the evolutions in the sector?

Standards	Involvement labour market actors
Occupational standards	/
Educational standards	Participation in realisation of training programmes/Mentors from the enterprises.
Assessment standards	/
Other ; namely :	/

### Question 2.4

Are standard periodically modified? Yes/**No**

Standards	How often modified?
Occupational standards	/
Educational standards	/
Assessment standards	/
Other ; namely :	/

### Question 2.5

Is this a full qualification or a partial qualification? **Full** / partial

Specify based on documentation.

This is formal qualification and part of CVET. The draft NQF document does not foreseen the partial qualification as such.

### Question 2.6

Is the qualification structured in units? Yes / **No**

Specify based on documentation

The TPP consist of teaching subjects.

Block III: Learning process

### Question 3.1

What is the target group for this qualification?

Target group	Yes / No
Young people in full-time education	/
Workers / CVET	Yes



Unemployed	/
Other	

### Question 3.2

(Answer in table below)

- What is/are the learning path(s) for this qualification?
- What is the percentage of practical training in each learning path?
- What is the average duration of the education / training leading to the certificate?
- What are entry requirements?

A. Learning path	Yes /No	B. Practical training in %	C. Average duration	D. Entry requirement
School based	Yes	960/542 <sup>47</sup>		
Work based	No			
Mix of school/work based	Yes	/	1 years	Finished 3 or 4 year secondary education (relevant educational profile) and 2 years of working experience
Other	/			

### Question 3.3

(Answer in table below)

- Which (type of) providers offer education/training programs for this qualification?
- Are these providers accredited?
- What is the number of new learners enrolled in these education/training programs in the last schoolyear?
- What is the number of graduates from these in the last schoolyear?

A. (Type of) provider	B. Accredited yes / No	C. Number of new learners last schoolyear (indication)	D. Number of graduates last schoolyear (Indication)
VET Schools	Yes	/	/

### Question 3.4

Are labour market actors involved in the learning process for this qualification? **Yes/No**

If yes, please specify

**Labour market actor** **Involved in**

<sup>47</sup> Out of 960 professional/vocational subjects' classes, 542 are realised as practical teaching and "block" teaching (professional practice).

Enterprises/Employers/Instructors Realisation of professional practice (practical teaching) and mentoring

## Block IV: Assessment<sup>48</sup>

### Question 4.1

Who is responsible for the assessment for this qualification?

Task	Responsible party		
	The education/training provider	External examination institute / centre	Other ....
Development of exams	X (VET school)		
Organisation of exams	X (VET school)		
Grading exams	X (mixed examination commission)		

### Question 4.2

Who are the assessors?

Assessors	Tick the appropriate and give details
Teachers / trainers	/
Professionals (external)	/
Mixed jury	Examination commissions consist of three members, two teachers and one representative of external professional.
Other	/

### Question 4.3

Are external professionals involved in the assessment of skills and competences for this qualification? **Yes** / No

If yes please specify:

External professionals	Involved in
Relevant representative of employers	Assessment of Specialisation exam as a member of assessment commission.

### Question 4.4

What is the assessment based on?

Assessment based on	Yes / No
Assessment standards/criteria	No
Learning outcomes	No
Curriculum	Yes

<sup>48</sup> These questions are about the summative assessment that someone has to pass to receive a certificate.

Other	
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#### Question 4.5

What types of assessment are used?

Types of assessment	Yes / No
Written theory exam	Yes
Oral theory exam	Yes
Study case	/
Practical exam in school or training centre	Yes/Practical exam is carried out in the school or in the company depending on fulfilment of conditions for realisation of the exam.
Practical exam in company	Yes/ If there is are conditions for realisation of the exam in the company.
Other	/

#### Question 4.6

What is the percentage of practical assessment of skills and competences for this qualification?

Tick the right box.

Percentage of practical assessment of skills and competences	Comments
0-10%	
10-40%	The VET Specialisation exam consists of knowledge test and practical work.
50-70%	
➤ 70%	

### Block V: Certification

#### Question 5.1

Who awards (issues) the diploma/certificate for this qualification?

Diploma / Certificate issued by:	Comments
Diploma is issued by the VET school	This is regulated by the Law.

#### Question 5.2

Which authority provides accreditation/recognition for this qualification?

Diploma / Certificate accredited / recognised by:	Comments

This qualification is part of formal education system.	Ministry is accrediting providers (VET schools) that are issuing the Diploma.
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### Question 5.3

Is this qualification, or its standards published / inserted in a Registry, Database, Catalogue supported by public institutions, or / and by sectoral bodies / chambers? **Yes/ no**

Specify which. Link / URL

The qualification is published in the Official Gazette – Education Gazette of the Republic of Serbia.

### Question 5.4

Which is the quality assurance confirmation of the Qualification? **No**

Any brand, reference, certification.

Row number in Inventory	Title of Qualification	Translated title (EN)	Qualification type	NQF level
287	Виноградар – специјалиста	Wine grower – specialist	Formal	5

## Block I: Relevance for the labour market

### Question 1.1

How is the relevance / linkage of this qualification to the labour market / employment ensured?

Indicators:	Evidence
Labour market research	/
Employers view / opinions	Agreement with Enterprises for realisation of professional practice. Usually the specialisation is organised for the employees of one or more enterprise on their request and with their support.
Job vacancies	/
Other	/

### Question 1.2

Which occupations are accessible for the holder of this qualification?

*Note: a qualification can be relevant for a number of different functions / jobs.*

Occupations	Evidence (legislation, labour market practise, agreements, others)
Operater specijalista u vinogradarstvu (The operator specialists in wine growing)	Rule book on teaching plan and programme, Official Gazette – Education Gazette, no. 17/97)
Vocarsko-vinogradarski specijalista (Fruit and wine growing specialists)	

### Question 1.3

Are labour market actors<sup>49</sup> involved in defining training needs for this qualification? Yes / **No**

If yes, specify:

Labour market actors	Involved in
Employers and practitioners	Defining duties and work tasks <sup>50</sup> . Work description for this qualification is very detailed.

## Block II: Standards and structure

### Question 2.1

What types of standards are behind the qualification?

Type of standards	Yes/No	Who was responsible for the development?
Occupational standards	No	
Educational standards	Yes	Ministry for Education and/or Institute for Improvement of Education

<sup>49</sup> Examples of labour market actors are: employers, enterprises, employers organisations, trade unions

<sup>50</sup> Групе послова и задатака.

Assessment standards	No	
Other; namely :	/	

### Question 2.2

**Please check the interconnection / coherence between:** Occupational standards, qualification standards and the linked programmes (curricula).

There is a link between described duties and work tasks and curriculum.

### Question 2.3

How are labour market actors involved in defining standards and ensuring that standards follow the evolutions in the sector?

Standards	Involvement labour market actors
Occupational standards	/
Educational standards	Participation in realisation of training programmes/Mentors from the enterprises.
Assessment standards	/
Other ; namely :	/

### Question 2.4

Are standard periodically modified? Yes/**No**

Standards	How often modified?
Occupational standards	/
Educational standards	/
Assessment standards	/
Other ; namely :	/

### Question 2.5

Is this a full qualification or a partial qualification? **Full** / partial

Specify based on documentation.

This is formal qualification and part of CVET. The draft NQF document does not foreseen the partial qualification as such.

### Question 2.6

Is the qualification structured in units? Yes / **No**

Specify based on documentation

The TPP consist of teaching subjects.

Block III: Learning process

### Question 3.1

What is the target group for this qualification?

Target group	Yes / No
Young people in full-time education	/

Workers / CVET	Yes
Unemployed	/
Other	

### Question 3.2

(Answer in table below)

- What is/are the learning path(s) for this qualification?
- What is the percentage of practical training in each learning path?
- What is the average duration of the education / training leading to the certificate?
- What are entry requirements?

A. Learning path	Yes /No	B. Practical training in %	C. Average duration	D. Entry requirement
School based	Yes	960/564 <sup>51</sup>		
Work based	No			
Mix of school/work based	Yes	/	1 years	Finished 3 or 4 year secondary education (relevant educational profile) and 2 years of working experience
Other	/			

### Question 3.3

(Answer in table below)

- Which (type of) providers offer education/training programs for this qualification?
- Are these providers accredited?
- What is the number of new learners enrolled in these education/training programs in the last schoolyear?
- What is the number of graduates from these in the last schoolyear?

A. (Type of) provider	B. Accredited yes / No	C. Number of new learners last schoolyear (indication)	D. Number of graduates last schoolyear (Indication)
VET Schools	Yes	/	/

### Question 3.4

Are labour market actors involved in the learning process for this qualification? **Yes/No**

If yes, please specify

<sup>51</sup> Out of 960 professional/vocational subjects' classes, 564 are realised as practical teaching and "block" teaching (professional practice).

Labour market actor	Involved in
Enterprises/Employers/Instructors	Realisation of professional practice (practical teaching) and mentoring

#### Block IV: Assessment<sup>52</sup>

##### Question 4.1

Who is responsible for the assessment for this qualification?

Task	Responsible party		
	The education/training provider	External examination institute / centre	Other ....
Development of exams	X (VET school)		
Organisation of exams	X (VET school)		
Grading exams	X (mixed examination commission)		

##### Question 4.2

Who are the assessors?

Assessors	Tick the appropriate and give details
Teachers / trainers	/
Professionals (external)	/
Mixed jury	Examination commissions consist of three members, two teachers and one representative of external professional.
Other	/

##### Question 4.3

Are external professionals involved in the assessment of skills and competences for this qualification? **Yes** / No

If yes please specify:

External professionals	Involved in
Relevant representative of employers	Assessment of Specialisation exam as a member of assessment commission.

##### Question 4.4

What is the assessment based on?

Assessment based on	Yes / No
Assessment standards/criteria	No
Learning outcomes	No

<sup>52</sup> These questions are about the summative assessment that someone has to pass to receive a certificate.



Curriculum	Yes
Other	

#### Question 4.5

What types of assessment are used?

Types of assessment	Yes / No
Written theory exam	Yes
Oral theory exam	Yes
Study case	/
Practical exam in school or training centre	Yes/Practical exam is carried out in the school or in the company depending on fulfilment of conditions for realisation of the exam.
Practical exam in company	Yes/ If there is are conditions for realisation of the exam in the company.
Other	/

#### Question 4.6

What is the percentage of practical assessment of skills and competences for this qualification?

Tick the right box.

Percentage of practical assessment of skills and competences	Comments
0-10%	
10-40%	The VET Specialisation exam consists of knowledge test and practical work.
50-70%	
➤ 70%	

### Block V: Certification

#### Question 5.1

Who awards (issues) the diploma/certificate for this qualification?

Diploma / Certificate issued by:	Comments
Diploma is issued by the VET school	This is regulated by the Law.

#### Question 5.2

Which authority provides accreditation/recognition for this qualification?

Diploma / Certificate accredited /	Comments
------------------------------------	----------

<b>recognised by:</b>	
This qualification is part of formal education system.	Ministry is accrediting providers (VET schools) that are issuing the Diploma.

#### Question 5.3

Is this qualification, or its standards published / inserted in a Registry, Database, Catalogue supported by public institutions, or / and by sectoral bodies / chambers? **Yes/ no**

Specify which. Link / URL

The qualification is published in the Official Gazette – Education Gazette of the Republic of Serbia.

#### Question 5.4

Which is the quality assurance confirmation of the Qualification? **No**

Any brand, reference, certification.

Row number in Inventory	Title of Qualification	Translated title (EN)	Qualification type	NQF level
580	Инжењер пољопривреде	Agricultural engineer (BAS 180 ECTS)	Formal	6.1

## Block I: Relevance for the labour market

### Question 1.1

How is the relevance / linkage of this qualification to the labour market / employment ensured?

Indicators:	Evidence
Labour market research	/
Employers view / opinions	/
Job vacancies	/
Other	/

### Question 1.2

Which occupations are accessible for the holder of this qualification?

*Note: a qualification can be relevant for a number of different functions / jobs.*

Occupations	Evidence (legislation, labour market practise, agreements, others)
Инжењер пољопривреде (Agricultural engineer) Occupation is not listed	NES internal document linking Unique nomenclature of occupation with National Classification of Occupation

### Question 1.3

Are labour market actors<sup>53</sup> involved in defining training needs for this qualification? Yes / No

If yes, specify:

Labour market actors	Involved in
Employers and practitioners	/

The HE institutions are doing Surveys of employers, as a part of HE institutions' self-evaluation process. Results of the surveys should be used to improve study programmes. This is indirect involvement.

## Block II: Standards and structure

### Question 2.1

What types of standards are behind the qualification?

Type of standards	Yes/No	Who was responsible for the development?
Occupational standards	No	
Educational standards	Yes	Learning outcomes are integral part of Accreditation standard no.4 – Competencies of graduate students, no. 5 – Curriculum.
Assessment standards	Yes	Learning outcomes are integral part of Accreditation standard no.8 – Students' assessment and progression
Other; namely :		

### Question 2.2

<sup>53</sup> Examples of labour market actors are: employers, enterprises, employers organisations, trade unions

**Please check the interconnection / coherence between:** Occupational standards, qualification standards and the linked programmes (curricula).

/

There is no occupation standard and there is no qualification standard so the correlation between these standards is not possible.

### Question 2.3

How are labour market actors involved in defining standards and ensuring that standards follow the evolutions in the sector?

Standards	Involvement labour market actors
Occupational standards	/
Educational standards	/
Assessment standards	/
Other ; namely :	In developing education and assessment standards results of the Employers survey should be included.

### Question 2.4

Are standard periodically modified?

Standards	How often modified?
Occupational standards	/
Educational standards	/
Assessment standards	/
Other ; namely :	The standards are subject of the revision periodically. The initiative for revision can come from the HE institutions or from National Council for HE. Every 5 years study programmes are accredited or reaccredited.

### Question 2.5

Is this a full qualification or a partial qualification? **Full** / partial

Specify based on documentation.

This is formal qualification and part of HE. The draft NQF document does not foreseen the partial qualification as such.

### Question 2.6

Is the qualification structured in units? **Yes** / No

Specify based on documentation

Accreditation documents, standard no. 5 – Curriculum is structured in subjects.

## Block III: Learning process

### Question 3.1

What is the target group for this qualification?

Target group	Yes / No
Young people in full-time education	Yes
Workers / CVET	/
Unemployed	/
Other	/

### Question 3.2

(Answer in table below)

A. What is/are the learning path(s) for this qualification?

- B. What is the percentage of practical training in each learning path?  
 C. What is the average duration of the education / training leading to the certificate?  
 D. What are entry requirements?

A. Learning path	Yes /No	B. Practical training in %	C. Average duration	D. Entry requirement
School based	Yes	5% (9 ECTS) <sup>54</sup>	180 ECTS (3 years)	Secondary education
Work based	No			
Mix of school/work based	No			
Other	/			

### Question 3.3

(Answer in table below)

- A. Which (type of) providers offer education/training programs for this qualification?  
 B. Are these providers accredited?  
 C. What is the number of new learners enrolled in these education/training programs in the last schoolyear?  
 D. What is the number of graduates from these in the last schoolyear?

A. (Type of) provider	B. Accredited yes / No	C. Number of new learners last school year (indication)	D. Number of graduates last school year (Indication)
University of Kragujevac, Faculty of Agronomy in Cacak	Yes	20 (school year 2016-2017) According to the Accreditation standard no.7 – Enrolment of the students. Only 10 students are enrolled (Web site)	/

### Question 3.4

Are labour market actors involved in the learning process for this qualification? **Yes/No**

If yes, please specify

Labour market actor	Involved in
Enterprises/Employers/Instructors	Realisation of professional practice (practical teaching)

### Block IV: Assessment<sup>55</sup>

### Question 4.1

Who is responsible for the assessment for this qualification?

Task	Responsible party		
	The education/training	External examination	Other ....

<sup>54</sup> The structure of the curriculum has Professional Practice which is realized through three forms, namely: Work practice for a period of 45 hours, which is organized in the second semester (3 ECTS points). The production practice for a period of 45 hours, which is being realized in the fourth semester (3 ECTS points) and Technological and organizational practice for a period of 45 hours, which is performed in the fifth semester (3 ECTS credits)

<sup>55</sup> These questions are about the summative assessment that someone has to pass to receive a certificate.

	provider	institute / centre	
Development of exams	X		
Organisation of exams	X		
Grading exams	X		

#### Question 4.2

Who are the assessors?

Assessors	Tick the appropriate and give details
Teachers / trainers	Faculty professors are assessing students
Professionals (external)	/
Mixed jury	/
Other	/

Through certificate for completed professional practice the employers are providing “opinion”/ assessment of students

#### Question 4.3

Are external professionals involved in the assessment of skills and competences for this qualification? Yes / **No**

If yes please specify:

External professionals	Involved in
/	/

Companies (employers) where students have professional practice - Realisation of professional practice and in providing assessment in the Certificate for completion of professional practice.

#### Question 4.4

What is the assessment based on?

Assessment based on	Yes / No
Assessment standards/criteria	Yes / Accreditation standard no.8 – Students’ assessment and progression
Learning outcomes	Yes
Curriculum	Yes
Other	

#### Question 4.5

What types of assessment are used?

Types of assessment	Yes / No
Written theory exam	Yes
Oral theory exam	Yes
Study case	/
Practical exam in school or training centre	/
Practical exam in company	/
Other Final work/paper	Yes

#### Question 4.6

What is the percentage of practical assessment of skills and competences for this qualification?

Tick the right box.

Practical assessment of skills and competencies is not specifically/separately defined, but rather is part of exams (for each subjects), both oral and written.

Percentage of practical assessment of skills and competences	Comments
0-10%	
10-40%	
50-70%	
➤ 70%	

#### Block V: Certification

##### Question 5.1

Who awards (issues) the diploma/certificate for this qualification?

Diploma / Certificate issued by:	Comments
Diploma is issued by the University	This is regulated by the Law.

##### Question 5.2

Which authority provides accreditation/recognition for this qualification?

Diploma / Certificate accredited / recognised by:	Comments
This qualification is part of formal education system.	Commission for Accreditation and Quality Assurance

##### Question 5.3

Is this qualification, or its standards published / inserted in a Registry, Database, Catalogue supported by public institutions, or / and by sectoral bodies / chambers? **Yes/ no**

Specify which. Link / URL

University of Kragujevac, Faculty of Agronomy in Cacak, <http://www.afc.kg.ac.rs>

##### Question 5.4

Which is the quality assurance confirmation of the Qualification? **Yes**

Any brand, reference, certification.

Study programme is accredited by the CAQA and HE is licenced for realisation of study programme, confirming that all quality assurance criteria are met.

Row number in Inventory	Title of Qualification	Translated title (EN)	Qualification type	NQF level
582	Дипломирани инжењер пољопривреде	Bachelor With Honours Agricultural Engineer (BAS 240 ECTS)	Formal	6.2

## Block I: Relevance for the labour market

### Question 1.1

How is the relevance / linkage of this qualification to the labour market / employment ensured?

Indicators:	Evidence
Labour market research	/
Employers view / opinions	/
Job vacancies	/
Other	/

### Question 1.2

Which occupations are accessible for the holder of this qualification?

*Note: a qualification can be relevant for a number of different functions / jobs.*

Occupations	Evidence (legislation, labour market practise, agreements, others)
Дипломирани инжењер пољопривреде/ Инжењер пољопривреде – 4 godine (Bachelor With Honours Agricultural Engineer) Occupation is not listed	NES internal document linking Unique nomenclature of occupation with National Classification of Occupation

### Question 1.3

Are labour market actors<sup>56</sup> involved in defining training needs for this qualification? Yes / **No**

If yes, specify:

Labour market actors	Involved in
Employers and practitioners	/

The HE institutions are doing Surveys of employers, as a part of HE institutions' self-evaluation process. Results of the surveys should be used to improve study programmes. This is indirect involvement.

## Block II: Standards and structure

### Question 2.1

What types of standards are behind the qualification?

Type of standards	Yes/No	Who was responsible for the development?
Occupational standards	No	
Educational standards	Yes	Learning outcomes are integral part of Accreditation standard no.4 – Competencies of graduate students, no. 5 – Curriculum.
Assessment standards	Yes	Learning outcomes are integral part of

<sup>56</sup> Examples of labour market actors are: employers, enterprises, employers organisations, trade unions



		Accreditation standard no.8 – Students' assessment and progression
Other; namely :		

### Question 2.2

**Please check the interconnection / coherence between:** Occupational standards, qualification standards and the linked programmes (curricula).

/

There is no occupation standard and there is no qualification standard so the correlation between these standards is not possible.

### Question 2.3

How are labour market actors involved in defining standards and ensuring that standards follow the evolutions in the sector?

Standards	Involvement labour market actors
Occupational standards	/
Educational standards	/
Assessment standards	/
Other ; namely :	In developing education and assessment standards results of the Employers survey should be included.

### Question 2.4

Are standard periodically modified?

Standards	How often modified?
Occupational standards	/
Educational standards	/
Assessment standards	/
Other ; namely :	The initiative for revision can come from the HE institutions or from National Council for HE. Every 5 years study programmes are accredited or reaccredited.

### Question 2.5

Is this a full qualification or a partial qualification? **Full** / partial

Specify based on documentation.

This is formal qualification and part of HE. The draft NQF document does not foreseen the partial qualification as such.

### Question 2.6

Is the qualification structured in units? **Yes** / No

Specify based on documentation

Accreditation documents, standard no. 5 – Curriculum is structured in subjects.

## Block III: Learning process

### Question 3.1

What is the target group for this qualification?

Target group	Yes / No
Young people in full-time education	Yes
Workers / CVET	/
Unemployed	/

Other	
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### Question 3.2

(Answer in table below)

- What is/are the learning path(s) for this qualification?
- What is the percentage of practical training in each learning path?
- What is the average duration of the education / training leading to the certificate?
- What are entry requirements?

A. Learning path	Yes /No	B. Practical training in %	C. Average duration	D. Entry requirement
School based	Yes	/	240 ECTS (4 years)	Secondary education
Work based	No			
Mix of school/work based	No			
Other	/			

The structure of this study program subjects are academic - general education subjects (15%), theoretical - methodological (20%), scientific - technical (35%) and professional application (30%), including optional subjects (accreditation standard no.5).

### Question 3.3

(Answer in table below)

- Which (type of) providers offer education/training programs for this qualification?
- Are these providers accredited?
- What is the number of new learners enrolled in these education/training programs in the last schoolyear?
- What is the number of graduates from these in the last schoolyear?

A. (Type of) provider	B. Accredited yes / No	C. Number of new learners last schoolyear (indication)	D. Number of graduates last schoolyear (Indication)
Belgrade university, Faculty of agriculture	Yes	55 students are enrolled annually into this programme	/

### Question 3.4

Are labour market actors involved in the learning process for this qualification? **Yes/No**

If yes, please specify

Labour market actor	Involved in
Enterprises/Employers/Instructors	Realisation of professional practice (practical teaching). Accreditation standard no.5 - Curriculum

Block IV: Assessment<sup>57</sup>

### Question 4.1

<sup>57</sup> These questions are about the summative assessment that someone has to pass to receive a certificate.

Who is responsible for the assessment for this qualification?

Task	Responsible party		
	The education/training provider	External examination institute / centre	Other ....
Development of exams	X		
Organisation of exams	X		
Grading exams	X		

#### Question 4.2

Who are the assessors?

Assessors	Tick the appropriate and give details
Teachers / trainers	Faculty professors are assessing students
Professionals (external)	/
Mixed jury	/
Other .....	/

Through certificate for completed professional practice the employers are providing "opinion"/ assessment of students

#### Question 4.3

Are external professionals involved in the assessment of skills and competences for this qualification? Yes / **No**

If yes please specify:

External professionals	Involved in
/	/

Companies (employers) where students have professional practice - Realisation of professional practice and in providing assessment in the Certificate for completion of professional practice.

#### Question 4.4

What is the assessment based on?

Assessment based on	Yes / No
Assessment standards/criteria	Yes / Accreditation standard no.8 – Students' assessment and progression
Learning outcomes	Yes
Curriculum	
Other: Final work/paper	

#### Question 4.5

What types of assessment are used?

Types of assessment	Yes / No
Written theory exam	Yes
Oral theory exam	Yes
Study case	/
Practical exam in school or training centre	/
Practical exam in company	/
Other Final work/paper	Yes

#### Question 4.6

What is the percentage of practical assessment of skills and competences for this qualification?

Tick the right box.

Practical assessment of skills and competencies is not specifically/separately defined, but rather is part of exams (for each subjects), both oral and written.

Percentage of practical assessment of skills and competences	Comments
0-10%	
10-40%	
50-70%	
➤ 70%	

Block V: Certification

#### Question 5.1

Who awards (issues) the diploma/certificate for this qualification?

Diploma / Certificate issued by:	Comments
Diploma is issued by the University	This is regulated by the Law.

#### Question 5.2

Which authority provides accreditation/recognition for this qualification?

Diploma / Certificate accredited / recognised by:	Comments
This qualification is part of formal education system.	Commission for Accreditation and Quality Assurance

#### Question 5.3

Is this qualification, or its standards published / inserted in a Registry, Database, Catalogue supported by public institutions, or / and by sectoral bodies / chambers? **Yes/ no**

Specify which. Link / URL

BELGRADE UNIVERSITY, FACULTY OF AGRICULTURE, [www.agrif.bg.ac.rs](http://www.agrif.bg.ac.rs)

#### Question 5.4

Which is the quality assurance confirmation of the Qualification? Yes

Any brand, reference, certification.

Study programme is accredited by the CAQA and HE is licenced for realisation of study programme, confirming that all quality assurance criteria are met.

Row number in Inventory	Title of Qualification	Translated title (EN)	Qualification type	NQF level
584	Мастер инжењер пољопривреде	Master engineer of agriculture	Formal	7.1

## Block I: Relevance for the labour market

### Question 1.1

How is the relevance / linkage of this qualification to the labour market / employment ensured?

Indicators:	Evidence
Labour market research	/
Employers view / opinions	/
Job vacancies	/
Other	/

### Question 1.2

Which occupations are accessible for the holder of this qualification?

*Note: a qualification can be relevant for a number of different functions / jobs.*

Occupations	Evidence (legislation, labour market practise, agreements, others)
Мастер инжењер пољопривреде / Дипломирани инжењер пољопривреде - мастер (Master engineer of agriculture) Occupation is not listed	NES internal document linking Unique nomenclature of occupation with National Classification of Occupation

### Question 1.3

Are labour market actors<sup>58</sup> involved in defining training needs for this qualification? Yes / No

If yes, specify:

Labour market actors	Involved in
Employers and practitioners	/

The HE institutions are doing Surveys of employers, as a part of HE institutions' self-evaluation process. Results of the surveys should be used to improve study programmes. This is indirect involvement.

## Block II: Standards and structure

### Question 2.1

What types of standards are behind the qualification?

Type of standards	Yes/No	Who was responsible for the development?
Occupational standards	No	
Educational standards	Yes	Learning outcomes are integral part of Accreditation standard no.4 – Competencies of graduate students, no. 5 – Curriculum.
Assessment standards	Yes	Learning outcomes are integral part of Accreditation standard no.8 – Students'

<sup>58</sup> Examples of labour market actors are: employers, enterprises, employers organisations, trade unions

		assessment and progression
Other; namely :		

### Question 2.2

**Please check the interconnection / coherence between:** Occupational standards, qualification standards and the linked programmes (curricula).

/

There is no occupation standard and there is no qualification standard so the correlation between these standards is not possible.

### Question 2.3

How are labour market actors involved in defining standards and ensuring that standards follow the evolutions in the sector?

Standards	Involvement labour market actors
Occupational standards	/
Educational standards	/
Assessment standards	/
Other ; namely :	In developing education and assessment standards results and findings of the Employers survey should be included.

### Question 2.4

Are standard periodically modified?

Standards	How often modified?
Occupational standards	/
Educational standards	/
Assessment standards	/
Other ; namely :	The standards are subject of the revision periodically. The initiative for revision can come from the HE institutions or from National Council for HE. Every 5 years study programmes are accredited or reaccredited.

### Question 2.5

Is this a full qualification or a partial qualification? **Full** / partial

Specify based on documentation.

This is formal qualification and part of HE. The draft NQF document does not foreseen the partial qualification as such.

### Question 2.6

Is the qualification structured in units? **Yes** / No

Specify based on documentation

Accreditation documents, standard no. 5 – Curriculum is structured in subjects and modules.

## Block III: Learning process

### Question 3.1

What is the target group for this qualification?

Target group	Yes / No
Young people in full-time education	Yes
Workers / CVET	/
Unemployed	/

Other	/
-------	---

### Question 3.2

(Answer in table below)

- What is/are the learning path(s) for this qualification?
- What is the percentage of practical training in each learning path?
- What is the average duration of the education / training leading to the certificate?
- What are entry requirements?

A. Learning path	Yes /No	B. Practical training in %	C. Average duration	D. Entry requirement
School based	Yes	(3 ECTS)	60 ECTS (1 years)	Basic academic studies
Work based	No			
Mix of school/work based	No			
Other	/			

Practical work is planned in the second semester (3 ECTS) for a total duration of 45 hours.

### Question 3.3

(Answer in table below)

- Which (type of) providers offer education/training programs for this qualification?
- Are these providers accredited?
- What is the number of new learners enrolled in these education/training programs in the last schoolyear?
- What is the number of graduates from these in the last schoolyear?

A. (Type of) provider	B. Accredited yes / No	C. Number of new learners last schoolyear (indication)	D. Number of graduates last schoolyear (Indication)
Belgrade university, Faculty of agriculture	Yes	32 (Accreditation standard no. 7 – Students' enrolment)	/

### Question 3.4

Are labour market actors involved in the learning process for this qualification? **Yes/No**

If yes, please specify

Labour market actor	Involved in
Enterprises/Employers/Instructors	Realisation of professional practice (practical teaching). Accreditation standard no.5 - Curriculum

## Block IV: Assessment<sup>59</sup>

### Question 4.1

Who is responsible for the assessment for this qualification?

Task	Responsible party
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<sup>59</sup> These questions are about the summative assessment that someone has to pass to receive a certificate.

	The education/training provider	External examination institute / centre	Other ....
Development of exams	X		
Organisation of exams	X		
Grading exams	X		

#### Question 4.2

Who are the assessors?

Assessors	Tick the appropriate and give details
Teachers / trainers	Faculty professors are assessing students
Professionals (external)	/
Mixed jury	/
Other .....	/

Through certificate for completed professional practice the employers are providing “opinion”/ assessment of students

#### Question 4.3

Are external professionals involved in the assessment of skills and competences for this qualification? Yes / **No**

If yes please specify:

External professionals	Involved in
/	/

Companies (employers) where students have professional practice - Realisation of professional practice and in providing assessment in the Certificate for completion of professional practice.

#### Question 4.4

What is the assessment based on?

Assessment based on	Yes / No
Assessment standards/criteria	Yes / Accreditation standard no.8 – Students’ assessment and progression
Learning outcomes	Yes
Curriculum	Yes
Other	

#### Question 4.5

What types of assessment are used?

Types of assessment	Yes / No
Written theory exam	Yes
Oral theory exam	Yes
Study case	/
Practical exam in school or training centre	/
Practical exam in company	/
Other Final work/Master paper	Yes

#### Question 4.6

What is the percentage of practical assessment of skills and competences for this qualification?



Tick the right box.

Practical assessment of skills and competencies is not specifically/separately defined, but rather is part of exams (for each subjects), both oral and written.

Percentage of practical assessment of skills and competences	Comments
0-10%	
10-40%	
50-70%	
➤ 70%	

## Block V: Certification

### Question 5.1

Who awards (issues) the diploma/certificate for this qualification?

Diploma / Certificate issued by:	Comments
Diploma is issued by the University	This is regulated by the Law.

### Question 5.2

Which authority provides accreditation/recognition for this qualification?

Diploma / Certificate accredited / recognised by:	Comments
This qualification is part of formal education system.	Commission for Accreditation and Quality Assurance

### Question 5.3

Is this qualification, or its standards published / inserted in a Registry, Database, Catalogue supported by public institutions, or / and by sectoral bodies / chambers? **Yes/ no**

Specify which. Link / URL

BELGRADE UNIVERSITY, FACULTY OF AGRICULTURE, [www.agrif.bg.ac.rs](http://www.agrif.bg.ac.rs)

### Question 5.4

Which is the quality assurance confirmation of the Qualification? **Yes**

Any brand, reference, certification.

Study programme is accredited by the CAQA and HE is licenced for realisation of study programme, confirming that all quality assurance criteria are met.

Row number in Inventory	Title of Qualification	Translated title (EN)	Qualification type	NQF level
586	Специјалиста инжењер пољопривреде	Specialist agricultural engineer	Formal	7.2

## Block I: Relevance for the labour market

### Question 1.1

How is the relevance / linkage of this qualification to the labour market / employment ensured?

Indicators:	Evidence
Labour market research	/
Employers view / opinions	/
Job vacancies	/
Other	/

### Question 1.2

Which occupations are accessible for the holder of this qualification?

*Note: a qualification can be relevant for a number of different functions / jobs.*

Occupations	Evidence (legislation, labour market practise, agreements, others)
Специјалиста инжењер пољопривреде / Дипломирани инжењер пољопривреде - специјалиста (Specialist agricultural engineer) Occupation is not listed	NES internal document linking Unique nomenclature of occupation with National Classification of Occupation

### Question 1.3

Are labour market actors<sup>60</sup> involved in defining training needs for this qualification? Yes / No

If yes, specify:

Labour market actors	Involved in
Employers and practitioners	/

The HE institutions are doing Surveys of employers, as a part of HE institutions' self-evaluation process. Results of the surveys should be used to improve study programmes. This is indirect involvement.

## Block II: Standards and structure

### Question 2.1

What types of standards are behind the qualification?

Type of standards	Yes/No	Who was responsible for the development?
Occupational standards	No	
Educational standards	Yes	Learning outcomes are integral part of Accreditation standard no.4 – Competencies of graduate students, no. 5 – Curriculum.
Assessment standards	Yes	Learning outcomes are integral part of Accreditation standard no.8 – Students'

<sup>60</sup> Examples of labour market actors are: employers, enterprises, employers organisations, trade unions

		assessment and progression
Other; namely :		

### Question 2.2

**Please check the interconnection / coherence between:** Occupational standards, qualification standards and the linked programmes (curricula).

/

There is no occupation standard and there is no qualification standard so the correlation between these standards is not possible.

### Question 2.3

How are labour market actors involved in defining standards and ensuring that standards follow the evolutions in the sector?

Standards	Involvement labour market actors
Occupational standards	/
Educational standards	/
Assessment standards	/
Other ; namely :	In developing education and assessment standards results of the Employers survey should be included.

### Question 2.4

Are standard periodically modified?

Standards	How often modified?
Occupational standards	/
Educational standards	/
Assessment standards	/
Other ; namely :	The standards are subject of the revision periodically. The initiative for revision can come from the HE institutions or from National Council for HE. Every 5 years study programmes are accredited or reaccredited.

### Question 2.5

Is this a full qualification or a partial qualification? **Full** / partial

Specify based on documentation.

This is formal qualification and part of HE. The draft NQF document does not foreseen the partial qualification as such.

### Question 2.6

Is the qualification structured in units? **Yes** / No

Specify based on documentation

Accreditation documents, standard no. 5 – Curriculum is structured in subjects.

## Block III: Learning process

### Question 3.1

What is the target group for this qualification?

Target group	Yes / No
Young people in full-time education	Yes
Workers / CVET	/
Unemployed	/
Other	/

### Question 3.2

(Answer in table below)

- A. What is/are the learning path(s) for this qualification?
- B. What is the percentage of practical training in each learning path?
- C. What is the average duration of the education / training leading to the certificate?
- D. What are entry requirements?

A. Learning path	Yes /No	B. Practical training in %	C. Average duration	D. Entry requirement
School based	Yes	/	60 ECTS (1 years)	Master studies
Work based	No			
Mix of school/work based	No			
Other	/			

Teaching is theoretical and practical in all cases.

### Question 3.3

(Answer in table below)

- A. Which (type of) providers offer education/training programs for this qualification?
- B. Are these providers accredited?
- C. What is the number of new learners enrolled in these education/training programs in the last schoolyear?
- D. What is the number of graduates from these in the last schoolyear?

A. (Type of) provider	B. Accredited yes / No	C. Number of new learners last schoolyear (indication)	D. Number of graduates last schoolyear (Indication)
Belgrade university, Faculty of agriculture	Yes	32 students can be enrolled annually	/

### Question 3.4

Are labour market actors involved in the learning process for this qualification? **Yes/No**

If yes, please specify

Labour market actor	Involved in
Enterprises/Employers/Instructors	Realisation of professional practice (practical teaching). Accreditation standard no.5 - Curriculum

Block IV: Assessment<sup>61</sup>

### Question 4.1

Who is responsible for the assessment for this qualification?

Task	Responsible party		
	The education/training provider	External examination institute / centre	Other ....

<sup>61</sup> These questions are about the summative assessment that someone has to pass to receive a certificate.

Development of exams	X		
Organisation of exams	X		
Grading exams	X		

#### Question 4.2

Who are the assessors?

Assessors	Tick the appropriate and give details
Teachers / trainers	Faculty professors are assessing students
Professionals (external)	/
Mixed jury	/
Other	/

Through certificate for completed professional practice the employers are providing “opinion”/ assessment of students

#### Question 4.3

Are external professionals involved in the assessment of skills and competences for this qualification? Yes / **No**

If yes please specify:

External professionals	Involved in
/	/

Companies (employers) where students have professional practice - Realisation of professional practice and in providing assessment in the Certificate for completion of professional practice.

#### Question 4.4

What is the assessment based on?

Assessment based on	Yes / No
Assessment standards/criteria	Yes / Accreditation standard no.8 – Students’ assessment and progression
Learning outcomes	Yes
Curriculum	Yes
Other	

#### Question 4.5

What types of assessment are used?

Types of assessment	Yes / No
Written theory exam	Yes
Oral theory exam	Yes
Study case	/
Practical exam in school or training centre	/
Practical exam in company	/
Other: Specialist work/paper	Yes

In the second semester, students can earn 10 ECTS through the exams passed, 8 ECTS through study and research work and 12 ECTS through specialist work, which for the second semester makes a total 30 ECTS, or 60 ECTS in full (two semesters) study program.

#### Question 4.6

What is the percentage of practical assessment of skills and competences for this qualification?

Tick the right box.

Practical assessment of skills and competencies is not specifically/separately defined, but rather is part of exams (for each subjects), both oral and written.

Percentage of practical assessment of skills and competences	Comments
0-10%	
10-40%	
50-70%	
➤ 70%	

Block V: Certification

#### Question 5.1

Who awards (issues) the diploma/certificate for this qualification?

Diploma / Certificate issued by:	Comments
Diploma is issued by the University	This is regulated by the Law.

#### Question 5.2

Which authority provides accreditation/recognition for this qualification?

Diploma / Certificate accredited / recognised by:	Comments
This qualification is part of formal education system.	Commission for Accreditation and Quality Assurance

#### Question 5.3

Is this qualification, or its standards published / inserted in a Registry, Database, Catalogue supported by public institutions, or / and by sectoral bodies / chambers? **Yes/ no**

Specify which. Link / URL

BELGRADE UNIVERSITY, FACULTY OF AGRICULTURE, [www.agrif.bg.ac.rs](http://www.agrif.bg.ac.rs)

#### Question 5.4

Which is the quality assurance confirmation of the Qualification? Yes

Any brand, reference, certification.

Study programme is accredited by the CAQA and HE is licenced for realisation of study programme, confirming that all quality assurance criteria are met.

Row number in Inventory	Title of Qualification	Translated title (EN)	Qualification type	NQF level
588	Доктор наука - биотехничке науке	Doctor of science - biotechnical	Formal	8.2

## Block I: Relevance for the labour market

### Question 1.1

How is the relevance / linkage of this qualification to the labour market / employment ensured?

Indicators:	Evidence
Labour market research	/
Employers view / opinions	/
Job vacancies	/
Other	/

### Question 1.2

Which occupations are accessible for the holder of this qualification?

*Note: a qualification can be relevant for a number of different functions / jobs.*

Occupations	Evidence (legislation, labour market practise, agreements, others)
Доктор наука - биотехничке науке (Doctor of science - biotechnical) Occupation is not listed	NES internal document linking Unique nomenclature of occupation with National Classification of Occupation

### Question 1.3

Are labour market actors<sup>62</sup> involved in defining training needs for this qualification? Yes / No

If yes, specify:

Labour market actors	Involved in
Employers and practitioners	/

The HE institutions are doing Surveys of employers, as a part of HE institutions' self-evaluation process. Results of the surveys should be used to improve study programmes. This is indirect involvement.

## Block II: Standards and structure

### Question 2.1

What types of standards are behind the qualification?

Type of standards	Yes/No	Who was responsible for the development?
Occupational standards	No	
Educational standards	Yes	Learning outcomes are integral part of Accreditation standard no.4 – Competencies of graduate students, no. 5 – Curriculum.
Assessment standards	Yes	Learning outcomes are integral part of Accreditation standard no.8 – Students' assessment and progression
Other; namely :		

### Question 2.2

<sup>62</sup> Examples of labour market actors are: employers, enterprises, employers organisations, trade unions

**Please check the interconnection / coherence between:** Occupational standards, qualification standards and the linked programmes (curricula).

/

There is no occupation standard and there is no qualification standard so the correlation between these standards is not possible.

### Question 2.3

How are labour market actors involved in defining standards and ensuring that standards follow the evolutions in the sector?

Standards	Involvement labour market actors
Occupational standards	/
Educational standards	/
Assessment standards	/
Other ; namely :	In developing education and assessment standards results of the Employers survey should be included.

### Question 2.4

Are standard periodically modified?

Standards	How often modified?
Occupational standards	/
Educational standards	/
Assessment standards	/
Other ; namely :	The standards are subject of the revision periodically. The initiative for revision can come from the HE institutions or from National Council for HE. Every 5 years study programmes are accredited or reaccredited.

### Question 2.5

Is this a full qualification or a partial qualification? **Full** / partial

Specify based on documentation.

This is formal qualification and part of HE. The draft NQF document does not foreseen the partial qualification as such.

### Question 2.6

Is the qualification structured in units? **Yes** / No

Specify based on documentation

Accreditation documents, standard no. 5 – Curriculum is structured in subjects and modules.

## Block III: Learning process

### Question 3.1

What is the target group for this qualification?

Target group	Yes / No
Young people in full-time education	Yes
Workers / CVET	/
Unemployed	/
Other	

### Question 3.2

(Answer in table below)

A. What is/are the learning path(s) for this qualification?



- B. What is the percentage of practical training in each learning path?  
 C. What is the average duration of the education / training leading to the certificate?  
 D. What are entry requirements?

A. Learning path	Yes / No	B. Practical training in %	C. Average duration	D. Entry requirement
School based	Yes	/	180 ECTS (3 years)	Master studies
Work based	No			
Mix of school/work based	No			
Other	/			

Teaching as recommended is divided into two categories: 1. lectures, 2. study research, and out of the total number of classes in the study program of doctoral studies, 26% of the hours of lectures.

### Question 3.3

(Answer in table below)

- A. Which (type of) providers offer education/training programs for this qualification?  
 B. Are these providers accredited?  
 C. What is the number of new learners enrolled in these education/training programs in the last schoolyear?  
 D. What is the number of graduates from these in the last schoolyear?

A. (Type of) provider	B. Accredited yes / No	C. Number of new learners last schoolyear (indication)	D. Number of graduates last schoolyear (Indication)
Belgrade university, Faculty of agriculture	Yes	90	/

### Question 3.4

Are labour market actors involved in the learning process for this qualification? Yes/**No**

If yes, please specify

Labour market actor	Involved in
Enterprises/Employers/Instructors	/

Block IV: Assessment<sup>63</sup>

### Question 4.1

Who is responsible for the assessment for this qualification?

Task	Responsible party		
	The education/training provider	External examination institute / centre	Other ....
Development of exams	X		
Organisation of exams	X		
Grading exams	X		

### Question 4.2

<sup>63</sup> These questions are about the summative assessment that someone has to pass to receive a certificate.

Who are the assessors?

Assessors	Tick the appropriate and give details
Teachers / trainers	Faculty professors are assessing students
Professionals (external)	/
Mixed jury	/
Other	/

#### Question 4.3

Are external professionals involved in the assessment of skills and competences for this qualification? Yes / **No**

If yes please specify:

External professionals	Involved in
/	/

#### Question 4.4

What is the assessment based on?

Assessment based on	Yes / No
Assessment standards/criteria	Yes / Accreditation standard no.8 – Students' assessment and progression
Learning outcomes	Yes
Curriculum	Yes
Other	

#### Question 4.5

What types of assessment are used?

Types of assessment	Yes / No
Written theory exam	Yes
Oral theory exam	Yes
Study case	/
Practical exam in school or training centre	/
Practical exam in company	/
Other: Doctoral thesis	Yes

#### Question 4.6

What is the percentage of practical assessment of skills and competences for this qualification?

Tick the right box.

Practical assessment of skills and competencies is not specifically/separately defined, but rather is part of exams (for each subjects), both oral and written.

Percentage of practical assessment of skills and competences	Comments
0-10%	
10-40%	
50-70%	

➤ 70%	
-------	--

## Block V: Certification

### Question 5.1

Who awards (issues) the diploma/certificate for this qualification?

Diploma / Certificate issued by:	Comments
Diploma is issued by the University	This is regulated by the Law.

### Question 5.2

Which authority provides accreditation/recognition for this qualification?

Diploma / Certificate accredited / recognised by:	Comments
This qualification is part of formal education system.	Commission for Accreditation and Quality Assurance

### Question 5.3

Is this qualification, or its standards published / inserted in a Registry, Database, Catalogue supported by public institutions, or / and by sectoral bodies / chambers? **Yes/ no**

Specify which. Link / URL

BELGRADE UNIVERSITY, FACULTY OF AGRICULTURE, [www.agrif.bg.ac.rs](http://www.agrif.bg.ac.rs)

### Question 5.4

Which is the quality assurance confirmation of the Qualification? Yes

Any brand, reference, certification

Study programme is accredited by the CAQA and HE is licenced for realisation of study programme, confirming that all quality assurance criteria are met.

Row number in Inventory	Title of Qualification	Translated title (EN)	Qualification type	NQF level
589	Струковни инжењер пољопривреде	Professional agricultural engineer	Formal	6.1

## Block I: Relevance for the labour market

### Question 1.1

How is the relevance / linkage of this qualification to the labour market / employment ensured?

Indicators:	Evidence
Labour market research	/
Employers view / opinions	/
Job vacancies	/
Other	/

### Question 1.2

Which occupations are accessible for the holder of this qualification?

*Note: a qualification can be relevant for a number of different functions / jobs.*

Occupations	Evidence (legislation, labour market practise, agreements, others)
Струковни инжењер пољопривреде (Professional agricultural engineer) Occupation is not listed	NES internal document linking Unique nomenclature of occupation with National Classification of Occupation

### Question 1.3

Are labour market actors<sup>64</sup> involved in defining training needs for this qualification? Yes / No

If yes, specify:

Labour market actors	Involved in
Employers and practitioners	/

The HE institutions are doing Surveys of employers, as a part of HE institutions' self-evaluation process. Results of the surveys should be used to improve study programmes. This is indirect involvement.

## Block II: Standards and structure

### Question 2.1

What types of standards are behind the qualification?

Type of standards	Yes/No	Who was responsible for the development?
Occupational standards	No	
Educational standards	Yes	Learning outcomes are integral part of Accreditation standard no.4 – Competencies of graduate students, no. 5 – Curriculum.
Assessment standards	Yes	Learning outcomes are integral part of Accreditation standard no.8 – Students' assessment and progression

<sup>64</sup> Examples of labour market actors are: employers, enterprises, employers organisations, trade unions

Other; namely :		
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### Question 2.2

**Please check the interconnection / coherence between:** Occupational standards, qualification standards and the linked programmes (curricula).

/

There is no occupation standard and there is no qualification standard so the correlation between these standards is not possible.

### Question 2.3

How are labour market actors involved in defining standards and ensuring that standards follow the evolutions in the sector?

Standards	Involvement labour market actors
Occupational standards	/
Educational standards	/
Assessment standards	/
Other ; namely :	In developing education and assessment standards results of the Employers survey should be included.

### Question 2.4

Are standard periodically modified?

Standards	How often modified?
Occupational standards	/
Educational standards	/
Assessment standards	/
Other ; namely :	The standards are subject of the revision periodically. The initiative for revision can come from the HE institutions or from National Council for HE. Every 5 years study programmes are accredited or reaccredited.

### Question 2.5

Is this a full qualification or a partial qualification? **Full** / partial

Specify based on documentation.

This is formal qualification and part of HE. The draft NQF document does not foreseen the partial qualification as such.

### Question 2.6

Is the qualification structured in units? **Yes** / No

Specify based on documentation

Accreditation documents, standard no. 5 – Curriculum is structured in subjects.

## Block III: Learning process

### Question 3.1

What is the target group for this qualification?

Target group	Yes / No
Young people in full-time education	Yes
Workers / CVET	/
Unemployed	/
Other	

### Question 3.2

(Answer in table below)

- What is/are the learning path(s) for this qualification?
- What is the percentage of practical training in each learning path?
- What is the average duration of the education / training leading to the certificate?
- What are entry requirements?

A. Learning path	Yes /No	B. Practical training in %	C. Average duration	D. Entry requirement
School based	Yes	/	180 ECTS (3 years)	Secondary education
Work based	No			
Mix of school/work based	No			
Other	/			

Professional practice, students will perform for a period of 150 hours, as work practice for a period of 50 hours, production practices for a period of 50 hours and technological-organizational practice for a period of 50 hours. In the basic professional/vocational study programme subjects are classified as 5 academic general education courses with a total of 30 ECTS (16.7%), 11 scientific, artistic or professional courses with a total of 66 ECTS (36.7%) and 13 expert-applicative courses with a total of 84 ECTS (46.7%).

### Question 3.3

(Answer in table below)

- Which (type of) providers offer education/training programs for this qualification?
- Are these providers accredited?
- What is the number of new learners enrolled in these education/training programs in the last schoolyear?
- What is the number of graduates from these in the last schoolyear?

A. (Type of) provider	B. Accredited yes / No	C. Number of new learners last schoolyear (indication)	D. Number of graduates last schoolyear (Indication)
Higher Agricultural School of Professional Studies Sabac	Yes	40	/

### Question 3.4

Are labour market actors involved in the learning process for this qualification? Yes/**No**

If yes, please specify

Labour market actor	Involved in
Enterprises/Employers/Instructors	/

Block IV: Assessment<sup>65</sup>

### Question 4.1

<sup>65</sup> These questions are about the summative assessment that someone has to pass to receive a certificate.

Who is responsible for the assessment for this qualification?

Task	Responsible party		
	The education/training provider	External examination institute / centre	Other ....
Development of exams	X		
Organisation of exams	X		
Grading exams	X		

#### Question 4.2

Who are the assessors?

Assessors	Tick the appropriate and give details
Teachers / trainers	Professional Colleges professors are assessing students
Professionals (external)	/
Mixed jury	/
Other .....	/

Through certificate for completed professional practice the employers are providing “opinion”/ assessment of students.

#### Question 4.3

Are external professionals involved in the assessment of skills and competences for this qualification? Yes / **No**

If yes please specify:

External professionals	Involved in
/	/

Companies (employers) where students have professional practice - Realisation of professional practice and in providing assessment in the Certificate for completion of professional practice.

#### Question 4.4

What is the assessment based on?

Assessment based on	Yes / No
Assessment standards/criteria	Yes / Accreditation standard no.8 – Students’ assessment and progression
Learning outcomes	Yes
Curriculum	
Other .....	

#### Question 4.5

What types of assessment are used?

Types of assessment	Yes / No
Written theory exam	Yes
Oral theory exam	Yes
Study case	/
Practical exam in school or training centre	/
Practical exam in company	/
Other	/

Types of assessment are determined individually per subject.

#### Question 4.6

What is the percentage of practical assessment of skills and competences for this qualification?

Tick the right box.

Practical assessment of skills and competencies is not specifically/separately defined, but rather is part of exams (for each subjects), both oral and written.

Percentage of practical assessment of skills and competences	Comments
0-10%	
10-40%	
50-70%	
➤ 70%	

#### Block V: Certification

#### Question 5.1

Who awards (issues) the diploma/certificate for this qualification?

Diploma / Certificate issued by:	Comments
Diploma is issued by the School/Professional College	This is regulated by the Law.

#### Question 5.2

Which authority provides accreditation/recognition for this qualification?

Diploma / Certificate accredited / recognised by:	Comments
This qualification is part of formal education system.	Commission for Accreditation and Quality Assurance

#### Question 5.3

Is this qualification, or its standards published / inserted in a Registry, Database, Catalogue supported by public institutions, or / and by sectoral bodies / chambers?

Yes/ no

Specify which. Link / URL

Higher Agricultural School of Professional Studies Sabac, [www.vpssa.edu.rs](http://www.vpssa.edu.rs)

#### Question 5.4

Which is the quality assurance confirmation of the Qualification?

Yes

Any brand, reference, certification.

Study programme is accredited by the CAQA and HE is licenced for realisation of study programme, confirming that all quality assurance criteria are met.



Row number in Inventory	Title of Qualification	Translated title (EN)	Qualification type	NQF level
591	Специјалиста струковни инжењер пољопривреде	Specialist professional agricultural engineer	Formal	6.2

## Block I: Relevance for the labour market

### Question 1.1

How is the relevance / linkage of this qualification to the labour market / employment ensured?

Indicators:	Evidence
Labour market research	/
Employers view / opinions	/
Job vacancies	/
Other	/

### Question 1.2

Which occupations are accessible for the holder of this qualification?

*Note: a qualification can be relevant for a number of different functions / jobs.*

Occupations	Evidence (legislation, labour market practise, agreements, others)
Специјалиста струковни инжењер пољопривреде (Specialist professional agricultural engineer) Occupation is not listed	NES internal document linking Unique nomenclature of occupation with National Classification of Occupation

### Question 1.3

Are labour market actors<sup>66</sup> involved in defining training needs for this qualification? Yes / No

If yes, specify:

Labour market actors	Involved in
Employers and practitioners	/

The HE institutions are doing Surveys of employers, as a part of HE institutions' self-evaluation process. Results of the surveys should be used to improve study programmes. This is indirect involvement.

## Block II: Standards and structure

### Question 2.1

What types of standards are behind the qualification?

Type of standards	Yes/No	Who was responsible for the development?
Occupational standards	No	
Educational standards	Yes	Learning outcomes are integral part of Accreditation standard no.4 – Competencies of graduate students, no. 5 – Curriculum.
Assessment standards	Yes	Learning outcomes are integral part of Accreditation standard no.8 – Students'

<sup>66</sup> Examples of labour market actors are: employers, enterprises, employers organisations, trade unions

		assessment and progression
Other; namely :		

### Question 2.2

**Please check the interconnection / coherence between:** Occupational standards, qualification standards and the linked programmes (curricula).

/

There is no occupation standard and there is no qualification standard so the correlation between these standards is not possible.

### Question 2.3

How are labour market actors involved in defining standards and ensuring that standards follow the evolutions in the sector?

Standards	Involvement labour market actors
Occupational standards	/
Educational standards	/
Assessment standards	/
Other ; namely :	/

### Question 2.4

Are standard periodically modified?

Standards	How often modified?
Occupational standards	/
Educational standards	/
Assessment standards	/
Other ; namely :	The standards are subject of the revision periodically. The initiative for revision can come from the HE institutions or from National Council for HE. Every 5 years study programmes are accredited or reaccredited.

### Question 2.5

Is this a full qualification or a partial qualification? **Full** / partial

Specify based on documentation.

This is formal qualification and part of HE. The draft NQF document does not foreseen the partial qualification as such.

### Question 2.6

Is the qualification structured in units? **Yes** / No

Specify based on documentation

Accreditation documents, standard no. 5 – Curriculum is structured in subjects.

## Block III: Learning process

### Question 3.1

What is the target group for this qualification?

Target group	Yes / No
Young people in full-time education	Yes
Workers / CVET	/
Unemployed	/
Other	

### Question 3.2

(Answer in table below)

- A. What is/are the learning path(s) for this qualification?
- B. What is the percentage of practical training in each learning path?
- C. What is the average duration of the education / training leading to the certificate?
- D. What are entry requirements?

A. Learning path	Yes /No	B. Practical training in %	C. Average duration	D. Entry requirement
School based	Yes	/	60 ECTS (1 years)	Basic Professional Studies
Work based	No			
Mix of school/work based	No			
Other	/			

The structure of this study program courses are divided into academic and general educational, scientific, artistic or technical and professional subjects. As academic - general classified are 2 subjects with a total of 10 ECTS (16.7%), as scientific, artistic or professional classified are 4 subjects with a total of 20 ECTS (33.3%) and in professional and applied are 5 subjects with a total of 30 ECTS (50.0%).

### Question 3.3

(Answer in table below)

- A. Which (type of) providers offer education/training programs for this qualification?
- B. Are these providers accredited?
- C. What is the number of new learners enrolled in these education/training programs in the last schoolyear?
- D. What is the number of graduates from these in the last schoolyear?

A. (Type of) provider	B. Accredited yes / No	C. Number of new learners last schoolyear (indication)	D. Number of graduates last schoolyear (Indication)
Higher Agricultural School of Professional Studies Sabac	Yes	32	/

### Question 3.4

Are labour market actors involved in the learning process for this qualification? Yes/**No**

If yes, please specify

Labour market actor	Involved in
Enterprises/Employers/Instructors	/

Block IV: Assessment<sup>67</sup>

<sup>67</sup> These questions are about the summative assessment that someone has to pass to receive a certificate.

#### Question 4.1

Who is responsible for the assessment for this qualification?

Task	Responsible party		
	The education/training provider	External examination institute / centre	Other ....
Development of exams	X		
Organisation of exams	X		
Grading exams	X		

#### Question 4.2

Who are the assessors?

Assessors	Tick the appropriate and give details
Teachers / trainers	Professional Colleges professors are assessing students
Professionals (external)	/
Mixed jury	/
Other	/

Through certificate for completed professional practice the employers are providing "opinion"/ assessment of students.

#### Question 4.3

Are external professionals involved in the assessment of skills and competences for this qualification? Yes / **No**

If yes please specify:

External professionals	Involved in
/	/

Companies (employers) where students have professional practice - Realisation of professional practice and in providing assessment in the Certificate for completion of professional practice.

#### Question 4.4

What is the assessment based on?

Assessment based on	Yes / No
Assessment standards/criteria	Yes / Accreditation standard no.8 – Students' assessment and progression
Learning outcomes	Yes
Curriculum	Yes
Other	

#### Question 4.5

What types of assessment are used?

Types of assessment	Yes / No
Written theory exam	Yes
Oral theory exam	Yes
Study case	/
Practical exam in school or training centre	/

Practical exam in company	/
Other	/

#### Question 4.6

What is the percentage of practical assessment of skills and competences for this qualification?

Tick the right box.

Practical assessment of skills and competencies is not specifically/separately defined, but rather is part of exams (for each subjects), both oral and written.

Percentage of practical assessment of skills and competences	Comments
0-10%	
10-40%	
50-70%	
➤ 70%	

#### Block V: Certification

#### Question 5.1

Who awards (issues) the diploma/certificate for this qualification?

Diploma / Certificate issued by:	Comments
Diploma is issued by the School/Professional College	This is regulated by the Law.

#### Question 5.2

Which authority provides accreditation/recognition for this qualification?

Diploma / Certificate accredited / recognised by:	Comments
This qualification is part of formal education system.	Commission for Accreditation and Quality Assurance

#### Question 5.3

Is this qualification, or its standards published / inserted in a Registry, Database, Catalogue supported by public institutions, or / and by sectoral bodies / chambers? **Yes/ no**

Specify which. Link / URL

Higher Agricultural School of Professional Studies Sabac, [www.vpssa.edu.rs](http://www.vpssa.edu.rs)

#### Question 5.4

Which is the quality assurance confirmation of the Qualification? Yes

Any brand, reference, certification.

Study programme is accredited by the CAQA and HE is licenced for realisation of study programme, confirming that all quality assurance criteria are met.

Row number in Inventory	Title of Qualification	Translated title (EN)	Qualification type	NQF level
1521	Органска производња, сушење и складиштење лековитог биља (невена и аниса)	Organic production, drying and storage of medicinal plants	Non-formal	2

## Block I: Relevance for the labour market

### Question 1.1

How is the relevance / linkage of this qualification to the labour market / employment ensured?

Indicators:	Evidence
Labour market research	
Employers view / opinions	Obtained through Functional analyses done by the CARDS project.
Job vacancies	
Other	Qualification were approved by the Institute for Improvement of Education and adopted by the Ministry.

### Question 1.2

Which occupations are accessible for the holder of this qualification?

*Note: a qualification can be relevant for a number of different functions / jobs.*

Occupations	Evidence (legislation, labour market practise, agreements, others)
Помоћник цвећара – вртлара (Assistant florists – gardeners)	Training programme, Education Gazette – 02/09

### Question 1.3

Are labour market actors<sup>68</sup> involved in defining training needs for this qualification? Yes / No

If yes, specify:

Labour market actors	Involved in
Employers and practitioners	/

## Block II: Standards and structure

### Question 2.1

What types of standards are behind the qualification?

Type of standards	Yes/No	Who was responsible for the development?
Occupational standards	Yes	Work description is integral part of Qualification Standard that is been developed by CARDS project
Educational standards <sup>69</sup>	Yes	Institute for Improvement of Education
Assessment standards	Yes	Institute for Improvement of Education
Other; namely :		

### Question 2.2

**Please check the interconnection / coherence between:** Occupational standards, qualification standards and the linked programmes (curricula).

<sup>68</sup> Examples of labour market actors are: employers, enterprises, employers organisations, trade unions

<sup>69</sup> "Programme outcomes" are formulated as LO but are not classified/sort out as Knowledge, Skills and Abilities and attitudes

Teaching Programme contains work description (occupation standards), which is the bases for defining “programme outcomes” (formulated as LO) and development of teaching programme (curriculum/programme content). Direct link between “programme outcomes” and work description exist but it is not demonstrated in obvious manner.

### Question 2.3

How are labour market actors involved in defining standards and ensuring that standards follow the evolutions in the sector?

Standards	Involvement labour market actors
Occupational standards	/
Educational standards	/
Assessment standards	/
Other ; namely :	/

### Question 2.4

Are standard periodically modified? **No**

Standards	How often modified?
Occupational standards	/
Educational standards	/
Assessment standards	/
Other ; namely :	/

### Question 2.5

Is this a full qualification or a partial qualification? **Full** / partial

Specify based on documentation.

This is non-formal qualification. The draft NQF document does not foreseen the partial qualification as such.

### Question 2.6

Is the qualification structured in units? Yes / **No**

Specify based on documentation

Official Gazette RS, no. 2/2009

Block III: Learning process

### Question 3.1

What is the target group for this qualification?

Target group	Yes / No
Young people in full-time education	/
Workers / CVET	/
Unemployed	Yes
Other	

### Question 3.2

(Answer in table below)

- What is/are the learning path(s) for this qualification?
- What is the percentage of practical training in each learning path?
- What is the average duration of the education / training leading to the certificate?
- What are entry requirements?

A. Learning path	Yes /	B. Practical	C. Average	D. Entry requirement
------------------	-------	--------------	------------	----------------------

	No	training in %	duration	
School based	Yes	75% (2/3)	180 hours/classes	Elementary education
Work based	No			
Mix of school/work based	No			
Other	/			

Duration of the training: 180 classes out of which 60 theoretical lecture and 120 classes of practical work.

### Question 3.3

(Answer in table below)

- Which (type of) providers offer education/training programs for this qualification?
- Are these providers accredited?
- What is the number of new learners enrolled in these education/training programs in the last schoolyear?
- What is the number of graduates from these in the last schoolyear?

A. (Type of) provider	B. Accredited yes / No	C. Number of new learners last schoolyear (indication)	D. Number of graduates last schoolyear (Indication)
VET Schools	Yes	/	/
Training Center for continuous adult education	Yes	/	/

Now these trainings can be realised by accredited public providers of adult education.

### Question 3.4

Are labour market actors involved in the learning process for this qualification? **Yes/No**

If yes, please specify

Labour market actor	Involved in
Enterprises/Employers/Instructors	Realisation of professional practice (practical teaching)

Block IV: Assessment<sup>70</sup>

### Question 4.1

Who is responsible for the assessment for this qualification?

Task	Responsible party		
	The education/training provider	External examination institute / centre	Other ....
Development of exams	X		
Organisation of exams	X		
Grading exams			X (mixed examination commission)

### Question 4.2

Who are the assessors?

<sup>70</sup> These questions are about the summative assessment that someone has to pass to receive a certificate.



Assessors	Tick the appropriate and give details
Teachers / trainers	/
Professionals (external)	/
Mixed jury	Examination commissions consist of three members, two teachers and one representative of social partner – external professionals.
Other	/

#### Question 4.3

Are external professionals involved in the assessment of skills and competences for this qualification? **Yes** / No

If yes please specify:

External professionals	Involved in
Relevant representative of employers	Assessment process is assessing (professional) competencies.

#### Question 4.4

What is the assessment based on?

Assessment based on	Yes / No
Assessment standards/criteria	Yes/ Assessment standards are based on LO
Learning outcomes	Yes
Curriculum	Yes
Other	

#### Question 4.5

What types of assessment are used?

Types of assessment	Yes / No
Written theory exam	Yes
Oral theory exam	/
Study case	/
Practical exam in school or training centre	Yes/Practical exam is carried out in the school or in the company depending on fulfilment of conditions for realisation of the exam.
Practical exam in company	Yes/ If there are fulfilled conditions.
Other	/

#### Question 4.6

What is the percentage of practical assessment of skills and competences for this qualification?

Tick the right box.

Percentage of practical assessment of skills and competences	Comments
0-10%	
10-40%	
50-70%	

➤ 70%	Out of 100 points, assessment of competencies can be scored up to 80.
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## Block V: Certification

### Question 5.1

Who awards (issues) the diploma/certificate for this qualification?

Diploma / Certificate issued by:	Comments
Certificate is issued by the VET school and Centre for Continuous Adult Education	This is regulated by the Law.

The school with the Center that is organizing training issues Certificate to student who has successfully mastered training program. Certificate contains: - information on the organizer and executor of the training (name and address of the schools, the number of verification decision for expanded activities/adult education, and information about the partner school, institutions, companies or private entrepreneurs who participated in the providing training, if one separate contract is concluded);- Data on the candidate;- Information on the training program (program/training name, names of modules, the duration of the program and the number of "the Education Gazette" in which it was published);- Data on the success of candidates for each module and the entire training program;- Signatures of the members of the board of examiners.

### Question 5.2

Which authority provides accreditation/recognition for this qualification?

Diploma / Certificate accredited / recognised by:	Comments
This qualification is part of non-formal education system.	Ministry is accrediting providers (VET schools and Centres for Continuous Adult education) that are issuing the Certificate.

Based on the Law on adult education accredited public providers of adult education can issue a certificate.

### Question 5.3

Is this qualification, or its standards published / inserted in a Registry, Database, Catalogue supported by public institutions, or / and by sectoral bodies / chambers? **Yes/ no**

Specify which. Link / URL

The qualification is published in the Official Gazette – Education Gazette of the Republic of Serbia.

### Question 5.4

Which is the quality assurance confirmation of the Qualification? **Yes**

Any brand, reference, certification.

The qualification is approved and adopted by the Council for Vocational and Adult Education and schools/providers are verified/accredited for the realisation/teaching of the qualification.

Row number in Inventory	Title of Qualification	Translated title (EN)	Qualification type	NQF level
1466	Узгој поврћа у затвореном простору	The cultivation of vegetables in enclosed space	Non-formal	Not specified

## Block I: Relevance for the labour market

### Question 1.1

How is the relevance / linkage of this qualification to the labour market / employment ensured?

Indicators:	Evidence
Labour market research	Employer Survey 2015/2016 Analysis and forecasts of labour market needs in the Republic of Serbia
Employers view / opinions	
Job vacancies	Internal reports from NES branch offices
Other	NES Statistical bulletin, which is published monthly. Analysis of data on the needs of employers (employers reported the need for employment to the local labour market branches. The Labour Force Survey of the Republic Institute for Statistics, which is published twice a year (in April and October). Analysis of individual employment plans of unemployed at the NES (whether the plan provides for the training as a measure which should increase the competence and thus competitiveness in the labour market).

### Question 1.2

Which occupations are accessible for the holder of this qualification?

*Note: a qualification can be relevant for a number of different functions / jobs.*

Occupations	Evidence (legislation, labour market practise, agreements, others)
Not specified	/

### Question 1.3

Are labour market actors<sup>71</sup> involved in defining training needs for this qualification? **Yes** / No

If yes, specify:

Labour market actors	Involved in
National Employment Service	Defining the "key competencies" for the qualification.

## Block II: Standards and structure

### Question 2.1

What types of standards are behind the qualification?

Information is not available. Work description is provided by the NES and education and assessment standards are part of the tendering documentation and developed by the providers.

Type of standards	Yes/No	Who was responsible for the development?
Occupational standards	No	
Educational standards	No	

<sup>71</sup> Examples of labour market actors are: employers, enterprises, employers organisations, trade unions

Assessment standards	No	
Other; namely :	/	

### Question 2.2

**Please check the interconnection / coherence between:** Occupational standards, qualification standards and the linked programmes (curricula).  
/

### Question 2.3

How are labour market actors involved in defining standards and ensuring that standards follow the evolutions in the sector?

Standards	Involvement labour market actors
Occupational standards	/
Educational standards	NES is providing training standard/programme and Employer Survey
Assessment standards	/
Other ; namely :	/

NES in the implementation of the public procurement process for provider of educational/training services use internal training standards (which is defined by NES), on the basis of which bidders can submit training program

### Question 2.4

Are standard periodically modified? **No**

Standards	How often modified?
Occupational standards	/
Educational standards	/
Assessment standards	/
Other ; namely :	/

### Question 2.5

Is this a full qualification or a partial qualification? **Full** / partial

Specify based on documentation.

This is non-formal qualification. The draft NQF document does not foreseen the partial qualification as such.

### Question 2.6

Is the qualification structured in units? **Yes** / No

Specify based on documentation

The training programme contains modules. Training programme is document provided by the bidder who was awarded the service contract after the public procurement process.

Block III: Learning process

### Question 3.1

What is the target group for this qualification?

Target group	Yes / No
Young people in full-time education	/
Workers / CVET	/
Unemployed	Yes
Other	

### Question 3.2

(Answer in table below)

- What is/are the learning path(s) for this qualification?
- What is the percentage of practical training in each learning path?
- What is the average duration of the education / training leading to the certificate?
- What are entry requirements?

A. Learning path	Yes / No	B. Practical training in %	C. Average duration	D. Entry requirement
School based	Yes	78%(140 classes)	180 Classes	Elementary education
Work based	No			
Mix of school/work based <sup>72</sup>	Yes			
Other	/			

### Question 3.3

(Answer in table below)

- Which (type of) providers offer education/training programs for this qualification?
- Are these providers accredited?
- What is the number of new learners enrolled in these education/training programs in the last schoolyear?
- What is the number of graduates from these in the last schoolyear?

A. (Type of) provider	B. Accredited yes / No	C. Number of new learners last schoolyear (indication)	D. Number of graduates last schoolyear (Indication)
VET Schools	Yes	/	/
Training Center for continuous adult education	Yes	/	/
NGO <sup>73</sup>	No	/	/
Other providers	No	/	/

Work Programme of the National Employment Service, which is in line with the National Employment Action Plan (NEAP contains annual program of additional education and training) determines quotas for all kinds of employment programs including training. For example about 10 different types of training for the labour market is realized annually. Thus, NES Work Programme for 2016 envisaged the inclusion of 1630 (1100 + 630 persons with disability) unemployed persons in training programs for the labour market. Branch Plan for the city Belgrade is 190 unemployed persons to be included into labour market training. Depending on the type of training, around 10 participants (group 1) are usually involved in training. In some of the training 20 participants (2 groups), are involved and this depends on the plan.

### Question 3.4

Are labour market actors involved in the learning process for this qualification? **Yes/No**

If yes, please specify

<sup>72</sup> If the training is organised for the known employer he may be involved in realisation of the training

<sup>73</sup> If they have education activity registered within Serbian Business Registers Agency.

Labour market actor	Involved in
Enterprises/Employers	If the training is organised for the known employer he may be involved in realisation of the training programme

#### Block IV: Assessment<sup>74</sup>

##### Question 4.1

Who is responsible for the assessment for this qualification?

Task	Responsible party		
	The education/training provider	External examination institute / centre	Other ....
Development of exams	X		
Organisation of exams	X		
Grading exams	X		

##### Question 4.2

Who are the assessors?

Assessors	Tick the appropriate and give details
Teachers / trainers	x
Professionals (external)	/
Mixed jury	/
Other .....	/

##### Question 4.3

Are external professionals involved in the assessment of skills and competences for this qualification? Yes / **No**

If yes please specify:

External professionals	Involved in
/	/

##### Question 4.4

What is the assessment based on? Information is not available

Assessment based on	Yes / No
Assessment standards/criteria	/
Learning outcomes	/
Curriculum	/
Other	/

##### Question 4.5

What types of assessment are used?

Types of assessment	Yes / No
Written theory exam	/
Oral theory exam	/
Study case	/
Practical exam in school or training centre	/

<sup>74</sup> These questions are about the summative assessment that someone has to pass to receive a certificate.

Practical exam in company	/
Other	Information is not available

#### Question 4.6

What is the percentage of practical assessment of skills and competences for this qualification?

Tick the right box.

Information is not available

Percentage of practical assessment of skills and competences	Comments
0-10%	
10-40%	
50-70%	
➤ 70%	

#### Block V: Certification

#### Question 5.1

Who awards (issues) the diploma/certificate for this qualification?

Diploma / Certificate issued by:	Comments
Certificate is issued by provider of training	

Training provider awards certificates to students who have successfully completed the training. To the participants who attended, but did not pass the final test, a certificate of attendance is awarded.

#### Question 5.2

Which authority provides accreditation/recognition for this qualification?

Diploma / Certificate accredited / recognised by:	Comments
This qualification is part of non-formal education system.	The certificate is recognised by the NES

Training data are entered in the individual job seeker register (database United NES information system on unemployed persons).

#### Question 5.3

Is this qualification, or its standards published / inserted in a Registry, Database, Catalogue supported by public institutions, or / and by sectoral bodies / chambers? Yes/ **No**  
Specify which. Link / URL

#### Question 5.4

Which is the quality assurance confirmation of the Qualification? **No**  
Any brand, reference, certification.

Row number in Inventory	Title of Qualification	Translated title (EN)	Qualification type	NQF level
1452	Сервисер кућних електричних уређаја	Electrical home appliances maintenance	Non-formal	Not specified

## Block I: Relevance for the labour market

### Question 1.1

How is the relevance / linkage of this qualification to the labour market / employment ensured?

Indicators:	Evidence
Labour market research	Employer Survey 2015/2016 Analysis and forecasts of labour market needs in the Republic of Serbia
Employers view / opinions	
Job vacancies	Internal reports from NES branch offices
Other	NES Statistical bulletin, which is published monthly. Analysis of data on the needs of employers (employers reported the need for employment to the local labour market branches. The Labour Force Survey of the Republic Institute for Statistics, which is published twice a year (in April and October). Analysis of individual employment plans of unemployed at the NES (whether the plan provides for the training as a measure which should increase the competence and thus competitiveness in the labour market).

### Question 1.2

Which occupations are accessible for the holder of this qualification?

*Note: a qualification can be relevant for a number of different functions / jobs.*

Occupations	Evidence (legislation, labour market practise, agreements, others)
Not specified	/

### Question 1.3

Are labour market actors<sup>75</sup> involved in defining training needs for this qualification? **Yes** / No

If yes, specify:

Labour market actors	Involved in
National Employment Service	Defining the "key competencies" for the qualification.

## Block II: Standards and structure

### Question 2.1

What types of standards are behind the qualification?

Information is not available. Work description is provided by the NES and education and assessment standards are part of the tendering documentation and developed by the providers.

Type of standards	Yes/No	Who was responsible for the development?
Occupational standards	No	
Educational standards	No	

<sup>75</sup> Examples of labour market actors are: employers, enterprises, employers organisations, trade unions



Assessment standards	No	
Other; namely :	/	

### Question 2.2

**Please check the interconnection / coherence between:** Occupational standards, qualification standards and the linked programmes (curricula).  
/

### Question 2.3

How are labour market actors involved in defining standards and ensuring that standards follow the evolutions in the sector?

Standards	Involvement labour market actors
Occupational standards	/
Educational standards	NES is providing training standard/programme and Employer Survey
Assessment standards	/
Other ; namely :	/

NES in the implementation of the public procurement process for provider of educational/training services use internal training standards (which is defined by NES), on the basis of which bidders can submit training program

### Question 2.4

Are standard periodically modified? **No**

Standards	How often modified?
Occupational standards	/
Educational standards	/
Assessment standards	/
Other ; namely :	/

### Question 2.5

Is this a full qualification or a partial qualification? **Full** / partial

Specify based on documentation.

This is non-formal qualification. The draft NQF document does not foreseen the partial qualification as such.

### Question 2.6

Is the qualification structured in units? **Yes** / No

Specify based on documentation

The training programme contains modules. Training programme is document provided by the bidder who was awarded the service contract after the public procurement process.

Block III: Learning process

### Question 3.1

What is the target group for this qualification?

Target group	Yes / No
Young people in full-time education	/
Workers / CVET	/
Unemployed	Yes
Other	

### Question 3.2

(Answer in table below)

- What is/are the learning path(s) for this qualification?
- What is the percentage of practical training in each learning path?
- What is the average duration of the education / training leading to the certificate?
- What are entry requirements?

A. Learning path	Yes / No	B. Practical training in %	C. Average duration	D. Entry requirement
School based	Yes	83%(300 classes)	360 Classes	Secondary education
Work based	No			
Mix of school/work based <sup>76</sup>	Yes			
Other	/			

### Question 3.3

(Answer in table below)

- Which (type of) providers offer education/training programs for this qualification?
- Are these providers accredited?
- What is the number of new learners enrolled in these education/training programs in the last schoolyear?
- What is the number of graduates from these in the last schoolyear?

A. (Type of) provider	B. Accredited yes / No	C. Number of new learners last schoolyear (indication)	D. Number of graduates last schoolyear (Indication)
VET Schools	Yes	/	/
Training Center for continuous adult education	Yes	/	/
NGO <sup>77</sup>	No	/	/
Other providers	No	/	/

Work Programme of the National Employment Service, which is in line with the National Employment Action Plan (NEAP contains annual program of additional education and training) determines quotas for all kinds of employment programs including training. For example about 10 different types of training for the labour market is realized annually. Thus, NES Work Programme for 2016 envisaged the inclusion of 1630 (1100 + 630 persons with disability) unemployed persons in training programs for the labour market. Branch Plan for the city Belgrade is 190 unemployed persons to be included into labour market training. Depending on the type of training, around 10 participants (group 1) are usually involved in training. In some of the training 20 participants (2 groups), are involved and this depends on the plan.

### Question 3.4

Are labour market actors involved in the learning process for this qualification? **Yes/No**

If yes, please specify

Labour market actor	Involved in
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<sup>76</sup> If the training is organised for the known employer he may be involved in realisation of the training

<sup>77</sup> If they have education activity registered within Serbian Business Registers Agency.

Enterprises/Employers	If the training is organised for the known employer he may be involved in realisation of the training programme
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#### Block IV: Assessment<sup>78</sup>

##### Question 4.1

Who is responsible for the assessment for this qualification?

Task	Responsible party		
	The education/training provider	External examination institute / centre	Other ....
Development of exams	X		
Organisation of exams	X		
Grading exams	X		

##### Question 4.2

Who are the assessors?

Assessors	Tick the appropriate and give details
Teachers / trainers	x
Professionals (external)	/
Mixed jury	/
Other	/

##### Question 4.3

Are external professionals involved in the assessment of skills and competences for this qualification? Yes / **No**

If yes please specify:

External professionals	Involved in
/	/

##### Question 4.4

What is the assessment based on? Information is not available.

Assessment based on	Yes / No
Assessment standards/criteria	/
Learning outcomes	/
Curriculum	/
Other .....	/

##### Question 4.5

What types of assessment are used?

Types of assessment	Yes / No
Written theory exam	/
Oral theory exam	/
Study case	/
Practical exam in school or training centre	/
Practical exam in company	/

<sup>78</sup> These questions are about the summative assessment that someone has to pass to receive a certificate.

Other	Information is not available
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#### Question 4.6

What is the percentage of practical assessment of skills and competences for this qualification?

Tick the right box.

Information is not available

Percentage of practical assessment of skills and competences	Comments
0-10%	
10-40%	
50-70%	
➤ 70%	

#### Block V: Certification

#### Question 5.1

Who awards (issues) the diploma/certificate for this qualification?

Diploma / Certificate issued by:	Comments
Certificate is issued by provider of training	

Training provider awards certificates to students who have successfully completed the training. To the participants who attended, but did not pass the final test, a certificate of attendance is awarded.

#### Question 5.2

Which authority provides accreditation/recognition for this qualification?

Diploma / Certificate accredited / recognised by:	Comments
This qualification is part of non-formal education system.	The certificate is recognised by the NES

Training data are entered in the individual job seeker register (database United NES information system on unemployed persons).

#### Question 5.3

Is this qualification, or its standards published / inserted in a Registry, Database, Catalogue supported by public institutions, or / and by sectoral bodies / chambers? Yes/ **No**  
Specify which. Link / URL

#### Question 5.4

Which is the quality assurance confirmation of the Qualification? **No**  
Any brand, reference, certification.

Row number in Inventory	Title of Qualification	Translated title (EN)	Qualification type	NQF level
1498	Одржавање аутоклима уређаја	Maintenance of car air-condition devices	Non-formal	2

## Block I: Relevance for the labour market

### Question 1.1

How is the relevance / linkage of this qualification to the labour market / employment ensured?

Indicators:	Evidence
Labour market research	
Employers view / opinions	Obtained through Functional analyses done by the CARDS project.
Job vacancies	
Other	Qualification were approved by the Institute for Improvement of Education and adopted by the Ministry.

### Question 1.2

Which occupations are accessible for the holder of this qualification?

*Note: a qualification can be relevant for a number of different functions / jobs.*

Occupations	Evidence (legislation, labour market practise, agreements, others)
Помоћник инсталатера климатизације (Assistant installer of air conditioning)	Training programme, Education Gazette – 02/09

### Question 1.3

Are labour market actors<sup>79</sup> involved in defining training needs for this qualification? Yes / No

If yes, specify:

Labour market actors	Involved in
Employers and practitioners	/

## Block II: Standards and structure

### Question 2.1

What types of standards are behind the qualification?

Type of standards	Yes/No	Who was responsible for the development?
Occupational standards	Yes	Work description is integral part of Qualification Standard that is been developed by CARDS project
Educational standards <sup>80</sup>	Yes	Institute for Improvement of Education
Assessment standards	Yes	Institute for Improvement of Education
Other; namely :		

### Question 2.2

**Please check the interconnection / coherence between:** Occupational standards, qualification standards and the linked programmes (curricula).

<sup>79</sup> Examples of labour market actors are: employers, enterprises, employers organisations, trade unions

<sup>80</sup> "Programme outcomes" are formulated as LO but are not classified/sort out as Knowledge, Skills and Abilities and attitudes

Teaching Programme contains work description (occupation standards), which is the bases for defining “programme outcomes” (formulated as LO) and development of teaching programme (curriculum/programme content). Direct link between “programme outcomes” and work description exist but it is not demonstrated in obvious manner.

### Question 2.3

How are labour market actors involved in defining standards and ensuring that standards follow the evolutions in the sector?

Standards	Involvement labour market actors
Occupational standards	/
Educational standards	/
Assessment standards	/
Other ; namely :	/

### Question 2.4

Are standard periodically modified? **No**

Standards	How often modified?
Occupational standards	/
Educational standards	/
Assessment standards	/
Other ; namely :	/

### Question 2.5

Is this a full qualification or a partial qualification? **Full** / partial

Specify based on documentation.

This is non-formal qualification. The draft NQF document does not foreseen the partial qualification as such.

### Question 2.6

Is the qualification structured in units? Yes / **No**

Specify based on documentation

Official Gazette RS, no. 2/2009

Block III: Learning process

### Question 3.1

What is the target group for this qualification?

Target group	Yes / No
Young people in full-time education	/
Workers / CVET	/
Unemployed	Yes
Other	

### Question 3.2

(Answer in table below)

- What is/are the learning path(s) for this qualification?
- What is the percentage of practical training in each learning path?
- What is the average duration of the education / training leading to the certificate?
- What are entry requirements?

A. Learning path	Yes /	B. Practical	C. Average	D. Entry requirement
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	No	training in %	duration	
School based	Yes	70%	100 hours/classes	Elementary education
Work based	No			
Mix of school/work based	No			
Other	/			

Duration of the training: 100 classes out of which 30 theoretical lecture and 70 classes of practical work.

### Question 3.3

(Answer in table below)

- Which (type of) providers offer education/training programs for this qualification?
- Are these providers accredited?
- What is the number of new learners enrolled in these education/training programs in the last schoolyear?
- What is the number of graduates from these in the last schoolyear?

A. (Type of) provider	B. Accredited yes / No	C. Number of new learners last schoolyear (indication)	D. Number of graduates last schoolyear (Indication)
VET Schools	Yes	/	/
Training Center for continuous adult education	Yes	/	/

Now these trainings can be realised by accredited public providers of adult education.

### Question 3.4

Are labour market actors involved in the learning process for this qualification? **Yes/No**

If yes, please specify

Labour market actor	Involved in
Enterprises/Employers/Instructors	Realisation of professional practice (practical teaching)

Block IV: Assessment<sup>81</sup>

### Question 4.1

Who is responsible for the assessment for this qualification?

Task	Responsible party		
	The education/training provider	External examination institute / centre	Other
Development of exams	X		
Organisation of exams	X		
Grading exams			X (mixed examination commission)

### Question 4.2

<sup>81</sup> These questions are about the summative assessment that someone has to pass to receive a certificate.

Who are the assessors?

Assessors	Tick the appropriate and give details
Teachers / trainers	/
Professionals (external)	/
Mixed jury	Examination commissions consist of three members, two teachers and one representative of social partner – external professionals.
Other	/

#### Question 4.3

Are external professionals involved in the assessment of skills and competences for this qualification? **Yes** / No

If yes please specify:

External professionals	Involved in
Relevant representative of employers	Assessment process is assessing (professional) competencies.

#### Question 4.4

What is the assessment based on?

Assessment based on	Yes / No
Assessment standards/criteria	Yes/ Assessment standards are based on LO
Learning outcomes	Yes
Curriculum	Yes
Other	

#### Question 4.5

What types of assessment are used?

Types of assessment	Yes / No
Written theory exam	Yes
Oral theory exam	/
Study case	/
Practical exam in school or training centre	Yes/Practical exam is carried out in the school or in the company depending on fulfilment of conditions for realisation of the exam.
Practical exam in company	Yes/ If there is are fulfilled conditions.
Other	/

#### Question 4.6

What is the percentage of practical assessment of skills and competences for this qualification?

Tick the right box.

Percentage of practical assessment of skills and competences	Comments
0-10%	



10-40%	
50-70%	
➤ 70%	Out of 100 points, assessment of competencies can be scored up to 80.

## Block V: Certification

### Question 5.1

Who awards (issues) the diploma/certificate for this qualification?

Diploma / Certificate issued by:	Comments
Certificate is issued by the VET school and Centre for Continuous Adult Education	This is regulated by the Law.

The school with the Center that is organizing training issues Certificate to student who has successfully mastered training program. Certificate contains: - information on the organizer and executor of the training (name and address of the schools, the number of verification decision for expanded activities/adult education, and information about the partner school, institutions, companies or private entrepreneurs who participated in the providing training, if one separate contract is concluded);- Data on the candidate;- Information on the training program (program/training name, names of modules, the duration of the program and the number of "the Education Gazette" in which it was published);- Data on the success of candidates for each module and the entire training program;- Signatures of the members of the board of examiners.

### Question 5.2

Which authority provides accreditation/recognition for this qualification?

Diploma / Certificate accredited / recognised by:	Comments
This qualification is part of non-formal education system.	Ministry is accrediting providers (VET schools and Centres for Continuous Adult education) that are issuing the Certificate.

Based on the Law on adult education accredited public providers of adult education can issue a certificate.

### Question 5.3

Is this qualification, or its standards published / inserted in a Registry, Database, Catalogue supported by public institutions, or / and by sectoral bodies / chambers? **Yes/ no**

Specify which. Link / URL

The qualification is published in the Official Gazette – Education Gazette of the Republic of Serbia.

### Question 5.4

Which is the quality assurance confirmation of the Qualification? Yes

Any brand, reference, certification.

The qualification is approved and adopted by the Council for Vocational and Adult Education and schools/providers are verified/accredited for the realisation/teaching of the qualification.

Row number in Inventory	Title of Qualification	Translated title (EN)	Qualification type	NQF level
1437	Пословни секретар	Business secretary	Non-formal	Not specified

## Block I: Relevance for the labour market

### Question 1.1

How is the relevance / linkage of this qualification to the labour market / employment ensured?

Indicators:	Evidence
Labour market research	Employer Survey 2015/2016 Analysis and forecasts of labour market needs in the Republic of Serbia
Employers view / opinions	
Job vacancies	Internal reports from NES branch offices
Other	NES Statistical bulletin, which is published monthly. Analysis of data on the needs of employers (employers reported the need for employment to the local labour market branches. The Labour Force Survey of the Republic Institute for Statistics, which is published twice a year (in April and October). Analysis of individual employment plans of unemployed at the NES (whether the plan provides for the training as a measure which should increase the competence and thus competitiveness in the labour market).

### Question 1.2

Which occupations are accessible for the holder of this qualification?

*Note: a qualification can be relevant for a number of different functions / jobs.*

Occupations	Evidence (legislation, labour market practise, agreements, others)
Not specified	/

### Question 1.3

Are labour market actors<sup>82</sup> involved in defining training needs for this qualification? **Yes** / No

If yes, specify:

Labour market actors	Involved in
National Employment Service	Defining the "key competencies" for the qualification.

## Block II: Standards and structure

### Question 2.1

What types of standards are behind the qualification?

Information is not available. Work description is provided by the NES and education and assessment standards are part of the tendering documentation and developed by the providers.

Type of standards	Yes/No	Who was responsible for the development?
Occupational standards	No	
Educational standards	No	
Assessment standards	No	

<sup>82</sup> Examples of labour market actors are: employers, enterprises, employers organisations, trade unions

Other; namely :	/	
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### Question 2.2

**Please check the interconnection / coherence between:** Occupational standards, qualification standards and the linked programmes (curricula).

/

### Question 2.3

How are labour market actors involved in defining standards and ensuring that standards follow the evolutions in the sector?

Standards	Involvement labour market actors
Occupational standards	/
Educational standards	NES is providing training standard/programme and Employer Survey
Assessment standards	/
Other ; namely :	/

NES in the implementation of the public procurement process for provider of educational/training services use internal training standards (which is defined by NES), on the basis of which bidders can submit training program

### Question 2.4

Are standard periodically modified? **No**

Standards	How often modified?
Occupational standards	/
Educational standards	/
Assessment standards	/
Other ; namely :	/

### Question 2.5

Is this a full qualification or a partial qualification? **Full** / partial

Specify based on documentation.

This is non-formal qualification. The draft NQF document does not foreseen the partial qualification as such.

### Question 2.6

Is the qualification structured in units? **Yes** / No

Specify based on documentation

The training programme contains modules. Training programme is document provided by the bidder who was awarded the service contract after the public procurement process .

**Block III: Learning process**

### Question 3.1

What is the target group for this qualification?

Target group	Yes / No
Young people in full-time education	/
Workers / CVET	/
Unemployed	Yes
Other	

### Question 3.2

(Answer in table below)

- A. What is/are the learning path(s) for this qualification?
- B. What is the percentage of practical training in each learning path?
- C. What is the average duration of the education / training leading to the certificate?
- D. What are entry requirements?

A. Learning path	Yes / No	B. Practical training in %	C. Average duration	D. Entry requirement
School based	Yes	/	300 Classes	Secondary education (4 years)
Work based	No			
Mix of school/work based <sup>83</sup>	Yes			
Other	/			

### Question 3.3

(Answer in table below)

- A. Which (type of) providers offer education/training programs for this qualification?
- B. Are these providers accredited?
- C. What is the number of new learners enrolled in these education/training programs in the last schoolyear?
- D. What is the number of graduates from these in the last schoolyear?

A. (Type of) provider	B. Accredited yes / No	C. Number of new learners last schoolyear (indication)	D. Number of graduates last schoolyear (Indication)
VET Schools	Yes	/	/
Training Center for continuous adult education	Yes	/	/
NGO <sup>84</sup>	No	/	/
Other providers	No	/	/

Work Programme of the National Employment Service, which is in line with the National Employment Action Plan (NEAP contains annual program of additional education and training) determines quotas for all kinds of employment programs including training. For example about 10 different types of training for the labour market is realized annually. Thus, NES Work Programme for 2016 envisaged the inclusion of 1630 (1100 + 630 persons with disability) unemployed persons in training programs for the labour market. Branch Plan for the city Belgrade is 190 unemployed persons to be included into labour market training. Depending on the type of training, around 10 participants (group 1) are usually involved in training. In some of the training 20 participants (2 groups), are involved and this depends on the plan.

### Question 3.4

Are labour market actors involved in the learning process for this qualification? **Yes/No**

If yes, please specify

Labour market actor	Involved in
Enterprises/Employers	If the training is organised for the known employer he may be

<sup>83</sup> If the training is organised for the known employer he may be involved in realisation of the training

<sup>84</sup> If they have education activity registered within Serbian Business Registers Agency.

	involved in realisation of the training programme
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#### Block IV: Assessment<sup>85</sup>

##### Question 4.1

Who is responsible for the assessment for this qualification?

Task	Responsible party		
	The education/training provider	External examination institute / centre	Other ....
Development of exams	X		
Organisation of exams	X		
Grading exams	X		

##### Question 4.2

Who are the assessors?

Assessors	Tick the appropriate and give details
Teachers / trainers	x
Professionals (external)	/
Mixed jury	/
Other	/

##### Question 4.3

Are external professionals involved in the assessment of skills and competences for this qualification? Yes / **No**

If yes please specify:

External professionals	Involved in
/	/

##### Question 4.4

What is the assessment based on? Information is not available.

Assessment based on	Yes / No
Assessment standards/criteria	/
Learning outcomes	/
Curriculum	/
Other	/

##### Question 4.5

What types of assessment are used?

Types of assessment	Yes / No
Written theory exam	/
Oral theory exam	/
Study case	/
Practical exam in school or training centre	/
Practical exam in company	/
Other	Information is not available

<sup>85</sup> These questions are about the summative assessment that someone has to pass to receive a certificate.

#### Question 4.6

What is the percentage of practical assessment of skills and competences for this qualification?

Tick the right box.

Information is not available.

Percentage of practical assessment of skills and competences	Comments
0-10%	
10-40%	
50-70%	
➤ 70%	

Block V: Certification

#### Question 5.1

Who awards (issues) the diploma/certificate for this qualification?

Diploma / Certificate issued by:	Comments
Certificate is issued by provider of training	

Training provider awards certificates to students who have successfully completed the training. To the participants who attended, but did not pass the final test, a certificate of attendance is awarded.

#### Question 5.2

Which authority provides accreditation/recognition for this qualification?

Diploma / Certificate accredited / recognised by:	Comments
This qualification is part of non-formal education system.	The certificate is recognised by the NES

Training data are entered in the individual job seeker register (database United NES information system on unemployed persons).

#### Question 5.3

Is this qualification, or its standards published / inserted in a Registry, Database, Catalogue supported by public institutions, or / and by sectoral bodies / chambers? Yes/ **No**

Specify which. Link / URL

#### Question 5.4

Which is the quality assurance confirmation of the Qualification? **No**

Any brand, reference, certification.

Row number in Inventory	Title of Qualification	Translated title (EN)	Qualification type	NQF level
1423	Монтажер системом суве градње	Dry lining system installer	Non-formal	Not specified

Block I: Relevance for the labour market

### Question 1.1

How is the relevance / linkage of this qualification to the labour market / employment ensured?

Indicators:	Evidence
Labour market research	Employer Survey 2015/2016 Analysis and forecasts of labour market needs in the Republic of Serbia
Employers view / opinions	
Job vacancies	Internal reports from NES branch offices
Other	NES Statistical bulletin, which is published monthly. Analysis of data on the needs of employers (employers reported the need for employment to the local labour market branches. The Labour Force Survey of the Republic Institute for Statistics, which is published twice a year (in April and October). Analysis of individual employment plans of unemployed at the NES (whether the plan provides for the training as a measure which should increase the competence and thus competitiveness in the labour market).

### Question 1.2

Which occupations are accessible for the holder of this qualification?

*Note: a qualification can be relevant for a number of different functions / jobs.*

Occupations	Evidence (legislation, labour market practise, agreements, others)
Not specified	/

### Question 1.3

Are labour market actors<sup>86</sup> involved in defining training needs for this qualification? **Yes** / No

If yes, specify:

Labour market actors	Involved in
National Employment Service	Defining the "key competencies" for the qualification.

Block II: Standards and structure

### Question 2.1

What types of standards are behind the qualification?

Information is not available. Work description is provided by the NES and education and assessment standards are part of the tendering documentation and developed by the providers.

Type of standards	Yes/No	Who was responsible for the development?
Occupational standards	No	
Educational standards	No	
Assessment standards	No	

<sup>86</sup> Examples of labour market actors are: employers, enterprises, employers organisations, trade unions

Other; namely :	/	
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### Question 2.2

**Please check the interconnection / coherence between:** Occupational standards, qualification standards and the linked programmes (curricula).

/

### Question 2.3

How are labour market actors involved in defining standards and ensuring that standards follow the evolutions in the sector?

Standards	Involvement labour market actors
Occupational standards	/
Educational standards	NES is providing training standard/programme and Employer Survey
Assessment standards	/
Other ; namely :	/

NES in the implementation of the public procurement process for provider of educational/training services use internal training standards (which is defined by NES), on the basis of which bidders can submit training program

### Question 2.4

Are standard periodically modified? **No**

Standards	How often modified?
Occupational standards	/
Educational standards	/
Assessment standards	/
Other ; namely :	/

### Question 2.5

Is this a full qualification or a partial qualification? **Full** / partial

Specify based on documentation.

This is non-formal qualification. The draft NQF document does not foreseen the partial qualification as such.

### Question 2.6

Is the qualification structured in units? **Yes** / No

Specify based on documentation

The training programme contains modules. Training programme is document provided by the bidder who was awarded the service contract after the public procurement process.

**Block III: Learning process**

### Question 3.1

What is the target group for this qualification?

Target group	Yes / No
Young people in full-time education	/
Workers / CVET	/
Unemployed	Yes
Other	

### Question 3.2

(Answer in table below)



- A. What is/are the learning path(s) for this qualification?  
 B. What is the percentage of practical training in each learning path?  
 C. What is the average duration of the education / training leading to the certificate?  
 D. What are entry requirements?

A. Learning path	Yes /No	B. Practical training in %	C. Average duration	D. Entry requirement
School based	Yes	/	250 Classes	Primary education
Work based	No			
Mix of school/work based <sup>87</sup>	Yes			
Other	/			

### Question 3.3

(Answer in table below)

- A. Which (type of) providers offer education/training programs for this qualification?  
 B. Are these providers accredited?  
 C. What is the number of new learners enrolled in these education/training programs in the last schoolyear?  
 D. What is the number of graduates from these in the last schoolyear?

A. (Type of) provider	B. Accredited yes / No	C. Number of new learners last schoolyear (indication)	D. Number of graduates last schoolyear (Indication)
VET Schools	Yes	/	/
Training Center for continuous adult education	Yes	/	/
NGO <sup>88</sup>	No	/	/
Other providers	No	/	/

Work Programme of the National Employment Service, which is in line with the National Employment Action Plan (NEAP contains annual program of additional education and training) determines quotas for all kinds of employment programs including training. For example about 10 different types of training for the labour market is realized annually. Thus, NES Work Programme for 2016 envisaged the inclusion of 1630 (1100 + 630 persons with disability) unemployed persons in training programs for the labour market. Branch Plan for the city Belgrade is 190 unemployed persons to be included into labour market training. Depending on the type of training, around 10 participants (group 1) are usually involved in training. In some of the training 20 participants (2 groups), are involved and this depends on the plan.

### Question 3.4

Are labour market actors involved in the learning process for this qualification? **Yes/No**

If yes, please specify

Labour market actor	Involved in
Enterprises/Employers	If the training is organised for the known employer he may be involved in realisation of the training programme

<sup>87</sup> If the training is organised for the known employer he may be involved in realisation of the training

<sup>88</sup> If they have education activity registered within Serbian Business Registers Agency.

## Block IV: Assessment<sup>89</sup>

### Question 4.1

Who is responsible for the assessment for this qualification?

Task	Responsible party		
	The education/training provider	External examination institute / centre	Other ....
Development of exams	X		
Organisation of exams	X		
Grading exams	X		

### Question 4.2

Who are the assessors?

Assessors	Tick the appropriate and give details
Teachers / trainers	x
Professionals (external)	/
Mixed jury	/
Other .....	/

### Question 4.3

Are external professionals involved in the assessment of skills and competences for this qualification? Yes / **No**

If yes please specify:

External professionals	Involved in
/	/

### Question 4.4

What is the assessment based on? Information is not available.

Assessment based on	Yes / No
Assessment standards/criteria	/
Learning outcomes	/
Curriculum	/
Other	/

### Question 4.5

What types of assessment are used?

Types of assessment	Yes / No
Written theory exam	/
Oral theory exam	/
Study case	/
Practical exam in school or training centre	/
Practical exam in company	/
Other	Information is not available

### Question 4.6

<sup>89</sup> These questions are about the summative assessment that someone has to pass to receive a certificate.

What is the percentage of practical assessment of skills and competences for this qualification?

Tick the right box.

Information is not available

Percentage of practical assessment of skills and competences	Comments
0-10%	
10-40%	
50-70%	
➤ 70%	

Block V: Certification

#### Question 5.1

Who awards (issues) the diploma/certificate for this qualification?

Diploma / Certificate issued by:	Comments
Certificate is issued by provider of training	

Training provider awards certificates to students who have successfully completed the training. To the participants who attended, but did not pass the final test, a certificate of attendance is awarded.

#### Question 5.2

Which authority provides accreditation/recognition for this qualification?

Diploma / Certificate accredited / recognised by:	Comments
This qualification is part of non-formal education system.	The certificate is recognised by the NES

Training data are entered in the individual job seeker register (database United NES information system on unemployed persons).

#### Question 5.3

Is this qualification, or its standards published / inserted in a Registry, Database, Catalogue supported by public institutions, or / and by sectoral bodies / chambers? Yes/ **No**

Specify which. Link / URL

#### Question 5.4

Which is the quality assurance confirmation of the Qualification? **No**

Any brand, reference, certification

Row number in Inventory	Title of Qualification	Translated title (EN)	Qualification type	NQF level
1513	Израда и монтажа намештаја од плочастих материјала	Fabrication and installation of particleboard furniture	Non-formal	2

## Block I: Relevance for the labour market

### Question 1.1

How is the relevance / linkage of this qualification to the labour market / employment ensured?

Indicators:	Evidence
Labour market research	
Employers view / opinions	Obtained through Functional analyses done by the CARDS project.
Job vacancies	
Other	Qualification were approved by the Institute for Improvement of Education and adopted by the Ministry.

### Question 1.2

Which occupations are accessible for the holder of this qualification?

*Note: a qualification can be relevant for a number of different functions / jobs.*

Occupations	Evidence (legislation, labour market practise, agreements, others)
Помоћник израђивача дрвене галантерије (Assistant maker of wooden products)	Training programme, Education Gazette – 02/09

### Question 1.3

Are labour market actors<sup>90</sup> involved in defining training needs for this qualification? Yes / No

If yes, specify:

Labour market actors	Involved in
Employers and practitioners	/

## Block II: Standards and structure

### Question 2.1

What types of standards are behind the qualification?

Type of standards	Yes/No	Who was responsible for the development?
Occupational standards	Yes	Work description is integral part of Qualification Standard that is been developed by CARDS project
Educational standards <sup>91</sup>	Yes	Institute for Improvement of Education
Assessment standards	Yes	Institute for Improvement of Education
Other; namely :		

### Question 2.2

<sup>90</sup> Examples of labour market actors are: employers, enterprises, employers organisations, trade unions

<sup>91</sup> "Programme outcomes" are formulated as LO but are not classified/sort out as Knowledge, Skills and Abilities and attitudes

**Please check the interconnection / coherence between:** Occupational standards, qualification standards and the linked programmes (curricula).

Teaching Programme contains work description (occupation standards), which is the bases for defining “programme outcomes” (formulated as LO) and development of teaching programme (curriculum/programme content). Direct link between “programme outcomes” and work description exist but it is not demonstrated in obvious manner.

### Question 2.3

How are labour market actors involved in defining standards and ensuring that standards follow the evolutions in the sector?

Standards	Involvement labour market actors
Occupational standards	/
Educational standards	/
Assessment standards	/
Other ; namely :	/

### Question 2.4

Are standard periodically modified? **No**

Standards	How often modified?
Occupational standards	/
Educational standards	/
Assessment standards	/
Other ; namely :	/

### Question 2.5

Is this a full qualification or a partial qualification? **Full** / partial

Specify based on documentation.

This is non-formal qualification. The draft NQF document does not foreseen the partial qualification as such.

### Question 2.6

Is the qualification structured in units? **Yes** / No

Specify based on documentation

Training plan contains 2 modules. Official Gazette RS, no. 2/2009

## Block III: Learning process

### Question 3.1

What is the target group for this qualification?

Target group	Yes / No
Young people in full-time education	/
Workers / CVET	/
Unemployed	Yes
Other	

### Question 3.2

(Answer in table below)

E. What is/are the learning path(s) for this qualification?

F. What is the percentage of practical training in each learning path?

G. What is the average duration of the education / training leading to the certificate?

H. What are entry requirements?

E. Learning path	Yes / No	F. Practical training in %	G. Average duration	H. Entry requirement
School based	Yes	72%	150 hours/classes	Elementary education
Work based	No			
Mix of school/work based	No			
Other	/			

Duration of the training: 150 classes out of which 42 theoretical lecture and 108 classes of practical work.

### Question 3.3

(Answer in table below)

- E. Which (type of) providers offer education/training programs for this qualification?
- F. Are these providers accredited?
- G. What is the number of new learners enrolled in these education/training programs in the last schoolyear?
- H. What is the number of graduates from these in the last schoolyear?

A. (Type of) provider	B. Accredited yes / No	C. Number of new learners last schoolyear (indication)	D. Number of graduates last schoolyear (Indication)
VET Schools	Yes	/	/
Training Center for continuous adult education	Yes	/	/

Now these trainings can be realised by accredited public providers of adult education.

### Question 3.4

Are labour market actors involved in the learning process for this qualification? **Yes/No**

If yes, please specify

Labour market actor	Involved in
Enterprises/Employers/Instructors	Realisation of professional practice (practical teaching)

## Block IV: Assessment<sup>92</sup>

### Question 4.1

Who is responsible for the assessment for this qualification?

Task	Responsible party		
	The education/training provider	External examination institute / centre	Other ....
Development of exams	X		
Organisation of exams	X		
Grading exams			X (mixed examination commission)

### Question 4.2

<sup>92</sup> These questions are about the summative assessment that someone has to pass to receive a certificate.

Who are the assessors?

Assessors	Tick the appropriate and give details
Teachers / trainers	/
Professionals (external)	/
Mixed jury	Examination commissions consist of three members, two teachers and one representative of social partner – external professionals.
Other	/

#### Question 4.3

Are external professionals involved in the assessment of skills and competences for this qualification? **Yes** / No

If yes please specify:

External professionals	Involved in
Relevant representative of employers	Assessment process is assessing (professional) competencies.

#### Question 4.4

What is the assessment based on?

Assessment based on	Yes / No
Assessment standards/criteria	Yes/ Assessment standards are based on LO
Learning outcomes	Yes
Curriculum	Yes
Other	

#### Question 4.5

What types of assessment are used?

Types of assessment	Yes / No
Written theory exam	Yes
Oral theory exam	/
Study case	/
Practical exam in school or training centre	Yes/Practical exam is carried out in the school or in the company depending on fulfilment of conditions for realisation of the exam.
Practical exam in company	Yes/ If there are fulfilled conditions.
Other	/

#### Question 4.6

What is the percentage of practical assessment of skills and competences for this qualification?  
Tick the right box.

Percentage of practical assessment of skills and competences	Comments
0-10%	
10-40%	

50-70%	
➤ 70%	Out of 100 points, assessment of competencies can be scored up to 80.

## Block V: Certification

### Question 5.1

Who awards (issues) the diploma/certificate for this qualification?

Diploma / Certificate issued by:	Comments
Certificate is issued by the VET school and Centre for Continuous Adult Education	This is regulated by the Law.

The school with the Center that is organizing training issues Certificate to student who has successfully mastered training program. Certificate contains: - information on the organizer and executor of the training (name and address of the schools, the number of verification decision for expanded activities/adult education, and information about the partner school, institutions, companies or private entrepreneurs who participated in the providing training, if one separate contract is concluded);- Data on the candidate;- Information on the training program (program/training name, names of modules, the duration of the program and the number of "the Education Gazette" in which it was published);- Data on the success of candidates for each module and the entire training program;- Signatures of the members of the board of examiners.

### Question 5.2

Which authority provides accreditation/recognition for this qualification?

Diploma / Certificate accredited / recognised by:	Comments
This qualification is part of non-formal education system.	Ministry is accrediting providers (VET schools and Centres for Continuous Adult education) that are issuing the Certificate.

### Question 5.3

Is this qualification, or its standards published / inserted in a Registry, Database, Catalogue supported by public institutions, or / and by sectoral bodies / chambers? **Yes/ no**

Specify which. Link / URL

The qualification is published in the Official Gazette – Education Gazette of the Republic of Serbia.

### Question 5.4

Which is the quality assurance confirmation of the Qualification? **Yes**

Any brand, reference, certification.

The qualification is approved and adopted by the Council for Vocational and Adult Education and schools/providers are verified/accredited for the realisation/teaching of the qualification.