

## 1. TITLE OF THE CERTIFICATE AND OF THE EDUCATION PROGRAMME (SL) <sup>(1)</sup>

**Spričevalo o poklicni maturi po izobraževalnem programu:**

**TEHNIK MEHATRONIKE**

(ID: 334152)

<sup>(1)</sup> In native language.

## 2. TRANSLATED TITLE OF THE CERTIFICATE AND OF THE EDUCATION PROGRAMME (EN) <sup>(1)</sup>

**School-leaving certificate:  
TECHNICIAN OF MECHATRONIC**

<sup>(1)</sup> This translation has no legal status.

## 3. ACQUIRED KNOWLEDGE, SKILLS AND PROFESSIONAL COMPETENCES

The holder of the certificate is qualified to:

- use and understand technical plans;
- use information systems in technological processes;
- provide for automation of technological processes for maintaining technological systems;
- determine lifting and load capacity of construction elements;
- use hydraulic and mechanical elements or systems, and electrical machines or appliances;
- construct mechatronic systems and plan assembly and disassembly of mechatronic systems;
- diagnose errors and perform simple repairs of mechatronic systems;
- programme less complex applications in different programme languages;
- integrate the information system with production process;
- maintain equipment and applications by integrating information system with production processes;
- design controls and regulations, and plan pneumatic and hydraulic controls;
- use and plan digital wiring, microcontroller, PLC control and sensory elements.

Optional:

- setup, start-up, maintain and service intelligent installations.
- assemble, start up, service and upgrade medical equipment.
- assemble, configure, install and set up the parameters of technical security systems.
- implement vehicle on-board computer diagnostics and replace actuators and sensors in a vehicle.
- plan, assemble, connect and maintain solar systems and heat pumps.

In addition, the holder of the certificate also upgraded his/her key professional skills and competences with key general knowledge and skills in line with national standards.

## 4. RANGE OF OCCUPATIONS ACCESSIBLE TO HOLDER OF THE CERTIFICATE

The holder of the certificate can find employment at:

- industry or craft trade with industrial or technological processes;
- industry or craft trade employing automation of production processes;
- work establishments in maintenance and modification of production lines and appliances.

### <sup>(\*)</sup> Explanatory note

This document is designed to provide additional information about the specified certificate and does not have any legal status in itself. The format of the description is based on the following texts: Council Resolution 93/C 49/01 of 3 December 1992 on the transparency of qualifications, Council Resolution 96/C 224/04 of 15 July 1996 on the transparency of vocational training certificates, and Recommendation 2001/613/EC of the European Parliament and of the Council of 10 July 2001 on mobility within the Community for students, persons undergoing training, volunteers, teachers and trainers.

More information available at: <http://europass.cedefop.eu.int>

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5. OFFICIAL BASIS OF THE CERTIFICATE	
<p><b>Name and status of the body awarding the certificate</b></p> <p>The institution is accredited with the Ministry of Education, Science and Sport.</p>	<p><b>Name and status of the national/regional authority providing accreditation/recognition of the certificate</b></p> <p>Ministry of Education, Science and Sport Masarykova 16 SI-1000 Ljubljana www.mizs.gov.si</p>
<p><b>Level of the certificate (national or international)</b></p> <p>Upper Secondary Technical Education Slovenian Qualification Framework: SOK 5 European Qualification Framework: EQF 4 ISCED 2011: 354</p>	<p><b>Grading scale</b></p> <p>5 – excellent 4 – very good 3 – good 2 – sufficient</p>
<p><b>Access to next level of education/training</b></p> <p>Education programme completed with the Vocational Matura exam enables enrolment to higher vocational and professional study programmes. Passing an additional General Matura exam is required to enrol to one of the university study programmes, which allow this possibility.</p>	<p><b>International agreements</b></p> <p>The Republic of Slovenia has concluded agreements on the recognition of education with individual countries. The relevant information is available at ENIC/NARIC - the National Academic Recognition Information Centre.</p>
<p><b>Legal basis</b></p> <p>Organisation and Financing of Education Act Vocational and Technical Education Act</p>	
6. OFFICIALLY RECOGNISED WAYS OF ACQUIRING THE CERTIFICATE	
Time of the education	4 years
Number of credits <sup>1</sup>	240 credits
General education	100 credits
Professional education	90 credits
Practical education at the employer	7 credits
Extracurricular activities	14 credits
Open curriculum <sup>2</sup>	25 credits
Vocational matura	4 credits
<p><b>Entry requirements</b></p> <p>The programme can be attended by anyone who has completed the programme of primary education or lower vocational education or equivalent education in line with previous regulations.</p>	
<p><b>Additional information</b></p> <ul style="list-style-type: none"> <li>– Ministry of Education, Science and Sport (<a href="http://www.mizs.gov.si">www.mizs.gov.si</a>): Education programme and description of education and schooling in Slovenia</li> <li>– National Reference Point for Vocational Qualifications - NRP (<a href="http://www.nrpslo.org">www.nrpslo.org</a>)</li> <li>– National Europass Centre (<a href="http://www.europass.si">www.europass.si</a>)</li> </ul>	

<sup>1</sup> One credit equals 25 hours of candidate's work.

<sup>2</sup> Goals of the open curriculum are defined by schools in cooperation with companies on a local/regional level.

## 7. A DETAILED DESCRIPTION OF EDUCATION

### GENERAL EDUCATION:

1. Slovene (24 credits)
2. Mathematics (19 credits)
3. Foreign language (20 credits)
4. Art (3 credits)
5. History (5 credits)
6. Geography (3 credits)
7. Sociology or Psychology (3 credits)
8. Physics (6 credits)
9. Chemistry (3 credits)
10. Physical education (14 credits)

### PROFESSIONAL EDUCATION:

#### Mandatory Modules (84 credits)

1. Data Processing Basics (4 credits)
2. Introduction to Technical Communication (4 credits)
3. Computer-Assisted Construction (4 credits)
4. Materials Technology (3 credits)
5. Mechanical Systems (6 credits)
6. Technological Procedures and Quality (6 credits)
7. CNC Control (6 credits)
8. Robotics (5 credits)
9. Electrotechnology in Mechatronics (7 credits)
10. Electrical Machinery (6 credits)
11. Digital Technology (6 credits)
12. Pneumatics and Hydraulics (6 credits)
13. Industrial Controllers (7 credits)
14. Regulation (6 credits)
15. Industrial Networks (4 credits)
16. Assembly, Start-up and Maintenance of Mechatronic Systems (4 credits)

#### Optional Models (6 credits)

17. Intelligent House (6 credits)
18. Mechatronics in Medicine (6 credits)
19. Technical Protection (6 credits)
20. Mechatronics in the Automotive Industry (6 credits)
21. Renewable Energy Sources (6 credits)

### OPEN CURRICULUM (25 credits):

The open curriculum is determined by the school in cooperation with companies on the local level.

### PRACTICAL EDUCATION:

1. Practical training in school
2. Practical training through work placement

### EXTRACURRICULAR ACTIVITIES (14 credits):

Extracurricular activities involve compulsory activities, programme-related content and electives.

### VOCATIONAL MATURA:

Mandatory part:

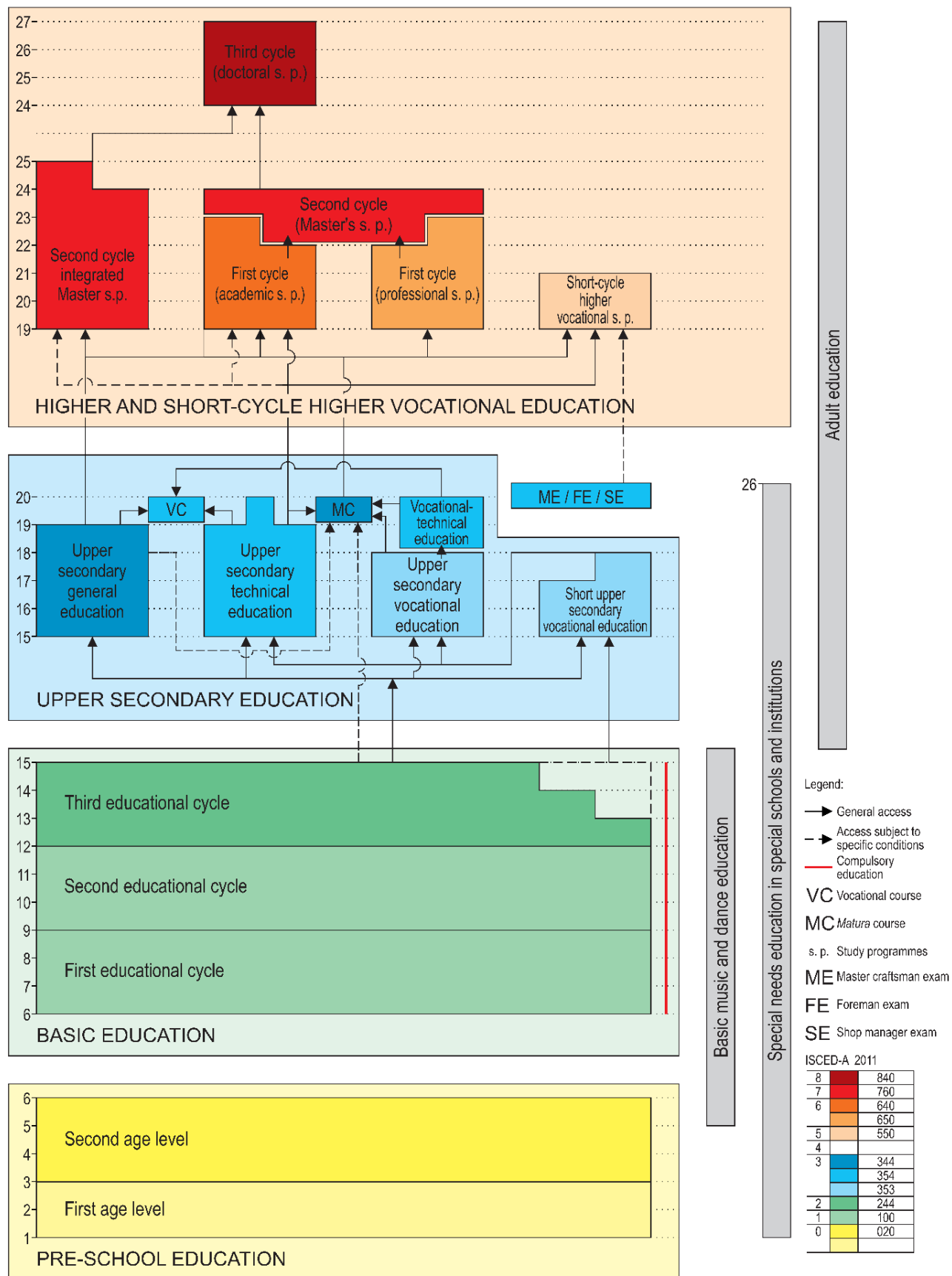
- written and oral exam of Slovenian language,
- written and oral exam in Mechatronics.

Optional part:

- written and oral exam in a Foreign language or Mathematics,
- presenting and defending a project or service:

### OTHER NOTES:

# STRUCTURE OF THE EDUCATION SYSTEM IN THE REPUBLIC OF SLOVENIA



From school/academic year 2016/2017