

Unified Model of Education

Jedinstven model obrazovanja

 Croatia

Reference year 2023

Content updates and contributors

Version 2023 - Drafted by Mirela Franović, Advisor, Department for Education, Croatian Chamber of Trades and Crafts - Member of [Cedefop Community of apprenticeship experts](#) for Croatia

① SCHEME HISTORY

Q1. When was the scheme introduced?



The apprenticeship scheme of the Unified Model of Education (UME/JMO) was implemented from the school year 2004/2005.

However, prior to that, there were dual programmes since the school year 1995/1996. The first Act on Crafts (1994) was the basis and prerequisite for the development of educational legislation, curricula and practical introduction for the dual system of education. After drafting the legislation and curricula, an experimental practice of the dual system of education started. The results were encouraging, but they also showed that there was a lot of work to get the system operating in its full capacity. Alongside with the experimental system, the 'classical model' (school-based) was practiced in most of the VET schools.

Therefore, in early 2003, the unified model of education (JMO) was developed, which was implemented in accordance with the Act on Crafts and also contained, although to a lesser extent, characteristics of dual education. New education programmes for craft occupation were introduced.

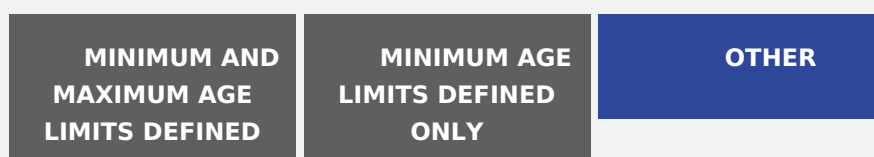
Q2. How did the apprenticeship scheme originate?



Although Croatia has a long-lasting tradition of craftsmanship, the apprenticeship scheme was formally introduced with the Crafts Act in 1996, when the “dual education” was first introduced. The existing apprenticeship is both a continuation of this model and the result of an effort to increase the hours of practical training compared to the school-based model.

② BENEFICIARIES

Q3. Does the legal basis define the minimum and maximum age limits for enrolment of the target group of this scheme?



Minimum and maximum age are not defined for apprenticeship but in relation to the enrolment in upper secondary education.

As defined in the Ordinance on Elements and Criteria for Selection of Candidates for Enrolment in the First Grade of Secondary Schools. Official Gazette 49/15, 109/16, 47/17 and 39/22, to enrol in the UME students need to finish elementary school – which means that the minimum age would be 14.5 (although this number is not defined).

The maximum enrolment age as defined in the Ordinance is 18 years old.

These age limits apply to the school-based pathway as well as to apprenticeship, since this is an alternative pathway to school-based education at upper secondary level.

Adults can also enrol in UME/JMO programmes, but in distinct adult education providers (adults are not trained in the same schools as younger students).

Q4. What is the average age of learners in practice?



There are no publicly available records of the age of students involved in apprenticeships. However, most students enrol in high school at the age of 15. All UME programmes last 3 years, so the majority of students involved in apprenticeships are in the 15 -18 bracket.

Q5. How many learners are enrolled in this scheme?

In school year 2022/2023: 12,505 students (out of which 4,411 in the 1st year)

In school year 2021/2022: 12,069 students (out of which 4,278 in the 1st year)

In school year 2020/2021: 11,432 students (out of which 4,100 in the 1st year)

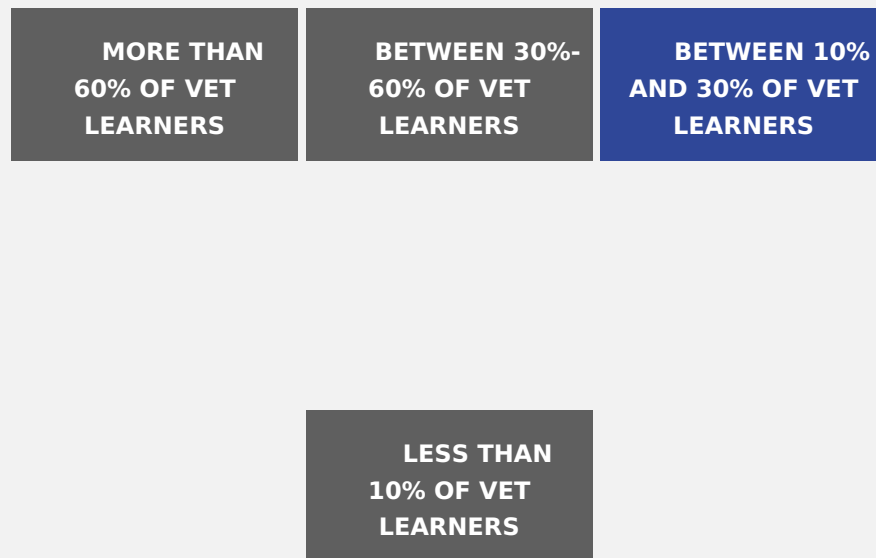
In school year 2019/2020: 10,606 students (out of which 3,915 in the 1st year)

In school year 2018/2019: 9,781 students (out of which 3,593 in the 1st year)

Source: Ministry of Science and Education's public database:

[https://app.powerbi.com/view?r=eyJrIjojZWE3YTE4OWQtOWJmNC00OTJmLWE2Mjkt...;](https://app.powerbi.com/view?r=eyJrIjojZWE3YTE4OWQtOWJmNC00OTJmLWE2Mjkt...)

Q6. What is the share of apprentices enrolled in this scheme in relation to all VET students for the corresponding educational level(s)?



In school year 2022/2023: 12,505 of 98,702 students (13%)
In school year 2021/2022: 12,069 of 97,238 students (12%)
In school year 2020/2021: 11,432 of 97,072 students (12%)
In school year 2019/2020: 10,606 of 95,997 students (11%)
In school year 2018/2019: 9,781 of 96,858 students (10%)

Source: Ministry of Science and Education's public database:
<https://app.powerbi.com/view?r=eyJrIjojZWZ3YTE4OWQtOWJmNC00OTJmLWE2Mjkt...>

3 QUALIFICATIONS

Q7. Are the qualifications included in the National Qualification Framework (NQF)?



Level 4.1 (EQF level 4: three-year vocational education. A total workload for acquiring a qualification is a minimum of 180 ECVET and/or HROO credits, with at least 120 ECVET and/or HROO credits of the Level 4 or a higher level of units of learning outcomes, respectively.

Q8. Is the scheme included in the ISCED 2011 mapping?

YES	NO
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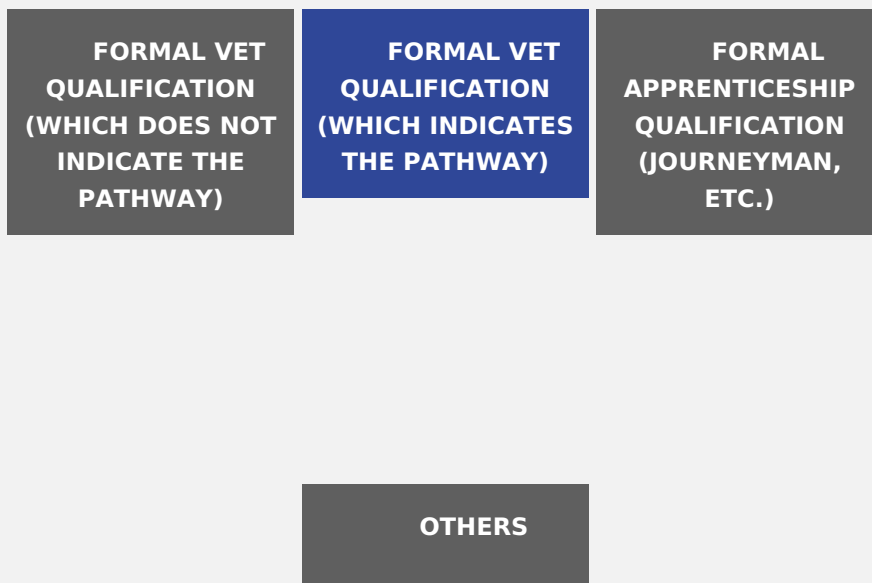
ISCED 3, programme code 303.

Q9. Are the qualifications offered only through apprenticeships?

QUALIFICATIONS CAN ONLY BE OBTAINED THROUGH THIS APPRENTICESHIP SCHEME	THE SAME QUALIFICATIONS CAN BE ACHIEVED ALSO THROUGH OTHER SCHEMES (I.E. SCHOOL- BASED VET)
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The same VET qualification can be obtained through school-based VET programmes.

Q10. Which is the type of qualification obtained through the apprenticeship scheme?



After completing an apprenticeship in UME scheme, the student needs to pass the final exam.

An integral part of the final exam is the apprenticeship exam which involves the performance of a work task within a more complex examination that tests practical skills and the level of independence and responsibility for carrying out the tasks of a particular craft in accordance with qualification standard.

The school issues a certificate of completion which is common for both tracks (school-based and apprenticeship). The Croatian Chamber of Trades and Crafts issues a supplement proving the successful apprenticeship examination, acquired key and professional competences and work experience.

Q11. Does the scheme provide direct access to higher education?



After the final exams, upon successful completion of apprenticeships, the apprentice can enrol in some of the higher education programmes only if they meet the additional requirements of passing the State Matura exam.

To take State Matura exam, qualification at level 4.2. is required. All qualifications gained through apprenticeship programmes are on level 4.1. of CROQF (three-year education).

Therefore, apprentices need to continue their education in the school-based model and

gain the 4.2. qualification in a similar occupation/similar economic sector. If there is no programme for similar occupation, they can enrol in a school-based programme for a different occupation and take additional and supplementary exams of the first, second and third year of a particular qualification and then enter the fourth grade. Students can complete the equivalent four-year programme during a period of two years. Upon successful completion, students can take the State Matura Exams that enable enrolment to higher education institutions.

In short, although there is an indirect possibility for apprentices to access higher education, it is harder for them as they need to acquire additional qualification.

Alternatively, after completing apprenticeship and after two years of work experience in the occupation, it is possible for the person to take the master craftsman exam (EQF and CROQF level 5). This option is offered by the Croatian Chamber of Trades and Crafts.

Q12. What is the typical duration of the apprenticeship programme?

Three years.

The curriculum for the UME programme defines (a) the number of hours per school year that the apprentice has to spend in practical training either at school workshop or at the employers and (b) out of that, the minimum number of hours that a student has to spend at the employer's premises where they do training/work for which they are paid.

First year:

- 315 hours for general education;
- 244-281 hours for the theoretical vocational part with elective classes;
- 900 hours for the practical part with technological exercises, of which at least 560 hours must be realised at the workplace.

Second year:

- 315 hours for general education;
- 244-280 hours for the theoretical vocational part with elective classes;
- 900 hours for the practical part with technological exercises, of which at least 630 hours must be realised at the workplace.

Third year:

- 224 hours for general education;
- 244-288 hours for the theoretical vocational part with elective classes;
- 800 hours for the practical part with technological exercises, of which at least 640 hours must be realised at the workplace.

4 GOVERNANCE

Q13. Is there any organization at the national level with roles in co-ordinating the scheme?

YES

NO

Coordination is divided between the Ministry for education, the Ministry for economy, the Croatian Chamber of Trades and Crafts and the Agency for Vocational Education and Training.

The Ministry for Science and Education is primarily responsible for co-ordination of education that is provided in schools.

The Ministry for Economy, Entrepreneurship and Crafts is in charge of managing the database of contracts and places for apprenticeships.

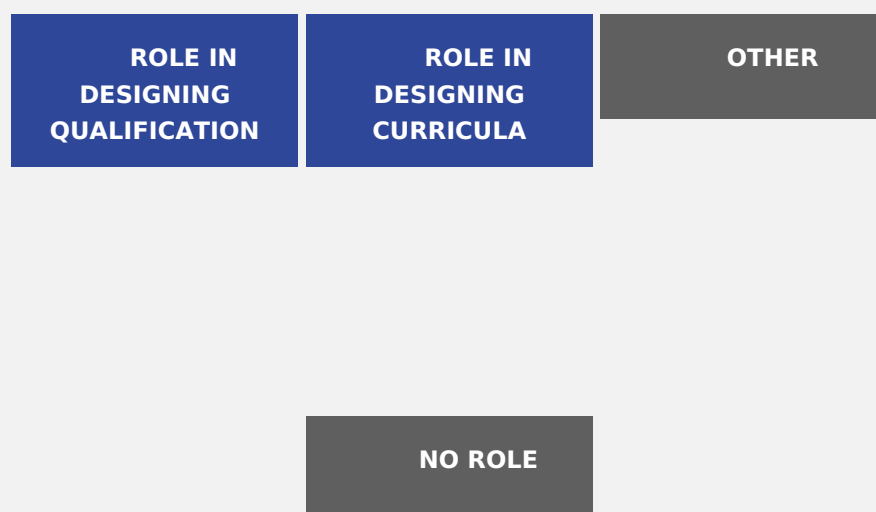
<https://enaukovanje.portor.hr/login.htm>

The Croatian Chamber of Trades and Crafts is in charge of issuing licenses to crafts and companies to take on apprentices, conducting exams for in-company mentors for apprenticeships, participating in apprenticeship exams and proposing apprenticeship curriculum in cooperation with the ministry responsible for crafts.

Both Croatian Chamber of Trades and Crafts and Croatian Chamber of Economy conduct training of in-company mentors.

The Agency for Vocational Education and Training is responsible for the procedure of external evaluation of apprenticeship exams.

Q14. What is the role of chambers, employers' and employees' representatives, sectoral councils (if existent), in shaping apprenticeship content, as per regulation?



The Croatian Chamber of Trades and Crafts (HOK) participates in the ongoing development of new occupational standards, that was initiated in 2019 by the Croatian Ministry of Labour (as part of an ESF project for the Implementation of the Croatian qualifications framework and the Development of tools to link education and labour market). This includes occupational standards for trades and crafts occupations, in which apprenticeship is offered under the EMU/JMO model.

The Croatian Chamber of Trades and Crafts has in fact led the development of several standards, involving employer and employee representatives in the design process (for example the [new occupational standard for auto-mechatronics](#)).

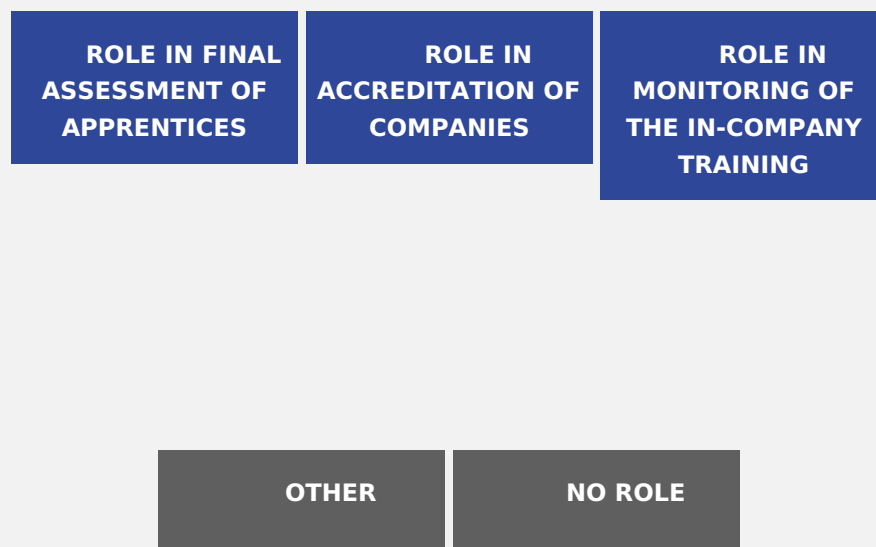
Occupational standards are the basis of the subsequent development of qualification standards and new curricula, including those offered in apprenticeships.

Regional centres of competence (RCC) are centres of vocational excellence that have brought VET stakeholders together for the development of new qualification standards and curricula. Some 25 such centres were developed in Croatia under the Programme

for the Development of VET 2016-20 (EU funded).

New curricula are being currently developed by the Agency for Vocational Education and Training and Adult Education.

Q15. What is the role of chambers, employers' and employees' representatives in implementing the apprenticeship scheme, as per regulation?



The Croatian Chamber of Trades and Crafts is in charge of issuing licenses to crafts and companies to take on apprentices, conducting exams for in-company mentors for apprenticeships, conducting apprenticeship exams (and proposing apprenticeship curriculum in cooperation with ministry of responsible for crafts – see Q14).

Both the Croatian Chamber of Trades and Crafts and the Croatian Chamber of Economy conduct training of in-company trainers (mentors).

Supervision of the implementation of apprenticeship at the employers is carried out by a committee composed of representatives of the Ministry responsible for crafts, vocational education institutions, the agency responsible for vocational education, the Croatian Chamber of Trades and Crafts and the Croatian Chamber of Economy.

In addition, the Croatian Chamber of Trades and Crafts, conducts the Master craftsman's exam (Level 5 of CQF, i.e. post-secondary).

Q16. What are the main roles of key state actors?

- Ministry of Economy and Sustainable Development: selecting occupations/programmes
- Ministry of Economy and Sustainable Development, Croatian Chamber of Trades and Crafts, Ministry of Science and Education: developing curricula/standards
- VET providers and licenced companies: delivering apprenticeship
- Ministry of Economy and Sustainable Development, Croatian Chamber of Trades and Crafts, VET Agency, Ministry of Science and Education: monitoring
- VET providers and licenced companies, Chamber members as members of the Apprenticeship Examination Board: implementation and assessment of apprenticeship exams
- County offices responsible for education, VET schools, Ministry of Science and Education, Ministry of Economy and Sustainable Development, Croatian Chamber of Trades and Crafts: planning the enrolment quota

5 TRAINING AT THE WORKPLACE

Q17. Is it compulsory to alternate training between two learning venues (school and company)?

YES

NO

The curriculum for the UME programme defines the minimum number of hours that a student has to spend at the employer premises as part of their apprenticeship programme (see Q12).

In fact, apprenticeship cannot start if the student has not found a place in a licenced enterprise. Without a place for apprenticeship, students have to transfer to the school-based programme or do the practical part of the curriculum in the school workshop instead of at the workplace of employers.

Q18. Is the in-company training defined as minimum share of the apprenticeship scheme duration?

**YES,
EQUIVALENT OR
MORE THAN 50%
OF SCHEME
DURATION**

**YES, BETWEEN
20% AND 50% OF
THE SCHEME
DURATION**

**YES, LESS
THAN 20% OF THE
SCHEME DURATION**

**NO, NO
MINIMUM SHARE IS
COMPULSORY**

The minimum hours at the workplace in relation to the total programme duration per year are as follows:

- First year: 560 hours / 1459 hours in total = 38.4%.
- Second year: 630 hours / 1459 hours in total = 43.2%.
- Third year: 640 hours / 1268 hours in total = 50.5%.

See Q12 for details.

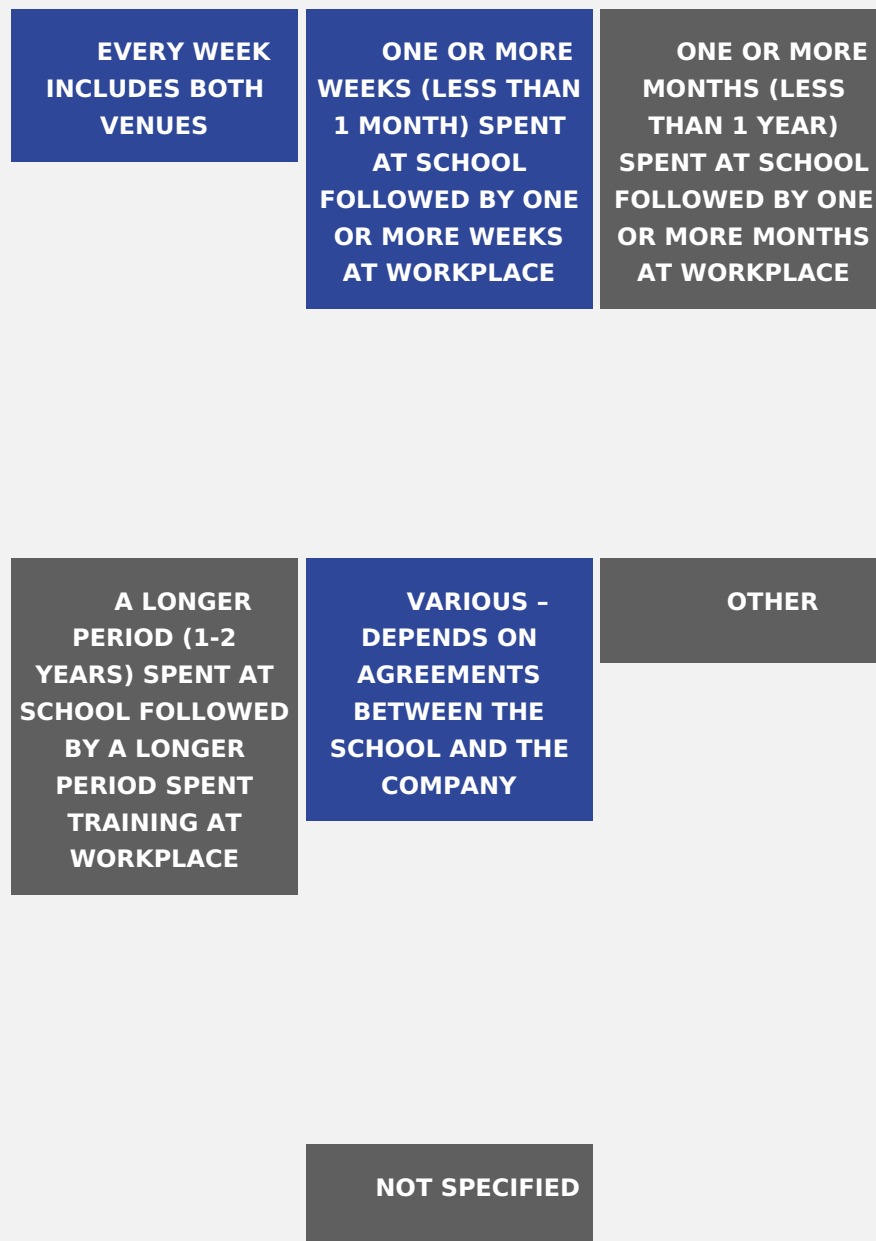
There are cases where apprentice spend more than the minimum at the workplace, but there are no statistics available.

Q19. Is there a distinction between the training time and working time for the period spent at workplace, as per regulation?

**YES, THE
LEGAL FRAMEWORK
MAKES THIS
DISTINCTION**

**NO, THE LEGAL
FRAMEWORK
MAKES NO
DISTINCTION**

Q20. What is the form of alternation of training between workplace (company) and school?



The recommended alteration model is: one week at school (theoretical part) – one week at the workplace. Schools also choose other possibilities (3 days school, 2 days companies).

This model can vary since it is not prescribed by legal documents. The main goal is to reach the total number of practical training hours.

Q21. What is the basis for the training offered?

**THE SCHEME IS
IMPLEMENTED VIA
A SPECIFIC
APPRENTICESHIP
PROGRAMME**

**THE SCHEME IS
IMPLEMENTED ON
THE BASIS OF THE
SCHOOL-BASED VET
PROGRAMME**

**THE SCHEME IS
IMPLEMENTED
BASED ON THE VET
STANDARDS (VALID
GENERALLY FOR
ALL VET SCHEMES)**

OTHER

There is a national regulation for each apprenticeship programme, that is for each occupation, which also includes the workplace component.

The existing curricula used in JMO are specific curricula for apprenticeship pathway only - they include the workplace component as well.

Q22. Is the company hosting apprentices required by regulation to follow a training plan at the workplace?

**YES, THE
TRAINING PLAN IS
BASED ON THE
NATIONAL/SECTORAL
REQUIREMENTS
FOR THE IN-
COMPANY
TRAINING**

**YES, THE
TRAINING PLAN IS
AGREED AT THE
LEVEL OF SCHOOL
AND COMPANY**

**NO, IS NOT
REQUIRED
FORMALLY**

This is specified in the Apprenticeship contract under obligations of the employer

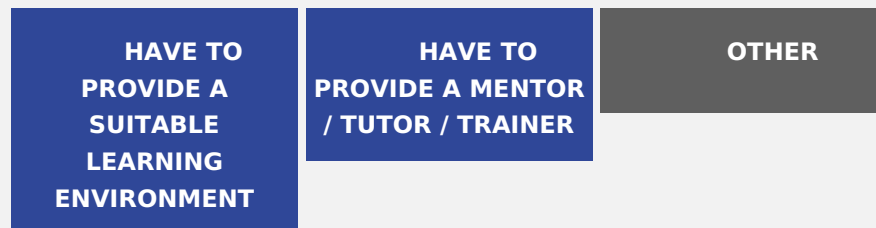
regarding the curriculum.

Learning outcomes for the apprenticeship are defined in the curricula, and employers need to organise their training according to the vocational curriculum.

A training plan is usually agreed between school and employer, but it is not formally required.

Assessment of apprentices during apprenticeship is carried out by the in-company mentor through the continuous monitoring of achievements at the workplace.

Q23. What are the requirements on companies to provide placements, as per regulation?



For the practical training and exercises, enterprises must have a license to take on apprentices, which is issued by the Croatian Chamber of Trades and Crafts. In order to get the licence, companies must ensure the conditions for apprentices to acquire the knowledge, skills and competencies in the real work process and guarantee the quality of the training at the workplace, in accordance with the curriculum.

This also means that an apprentice must have an appointed mentor who has adequate qualification and pedagogical competences (see Q24 in detail).

The licence has a validity period of seven years.

In detail, craftsmen and legal entities offering apprenticeships are obliged to:

- ensure the necessary conditions for the acquisition of the defined competencies,
- ensure and implement the prescribed occupational safety and security measures during the apprenticeship training,
- remunerate the student,
- continuously monitor, evaluate and assess the achieved learning outcomes for the contracted part of the apprenticeship programme,
- allow a VET teacher to visit and monitor the apprenticeship training and check the documentation,
- keep documentation on attendance of apprenticeship training,
- provide the necessary materials, machines, devices and tools for apprenticeship training incl. the exams within the training,
- comply with the appropriate hygienic and technical protection measures and
- fulfill other obligations as regulated in the Apprenticeship Agreement.

Information on licensed enterprises involved in the implementation of apprenticeships can be found on the website of the Ministry of Entrepreneurship and Crafts "eNaukovanje" (<https://enaukovanje.portor.hr/login.htm>) or on the websites of chambers: Croatian Chamber of Trades and Crafts and Croatian Chamber of Economy.

Q24. What are the formal requirements regarding workplace trainers/mentors/tutors? What is their profile?

The prerequisites for in-company mentors in UME/JMO are defined by the Act on Crafts and the 2020 Regulation on the procedure and manner of issuing permits (licenses) for conducting apprenticeships.

Their formal roles and duties are defined by the Act on Crafts and Regulation on the minimum conditions for apprenticeship contracts of 2020.

To implement the practical part of the apprenticeship training, the craftsman and the legal entity must have a license. The licence is issued by the Croatian Chamber of Crafts.

To get a licence, a company must provide a mentor: either the company owner or an employee, who must be employed full-time and fulfil one of the following conditions:

- the appropriate master craftsman qualification
- the appropriate secondary vocational education, a minimum of 7 years of work experience in the qualification and the exam proving basic knowledge of teaching students in apprenticeship training,
- the appropriate higher or higher education with the exam proving basic knowledge of teaching students in apprenticeship training,
- natural persons, inventors, persons with the appropriate secondary vocational education having a company in areas of special state care, hilly and mountainous areas or on islands, a minimum of three years of work experience in the qualification and the exam proving basic knowledge of teaching students in apprenticeship training.

Alongside with the existing Master Craftsman Exam which enables craftsmen to become in-company mentors, a new exam for in-company mentors was introduced in 2021. The exam is conducted by the Croatian Chamber of Trades and Crafts.

It is introduced according to the Act on Crafts, the 2020 Regulation on the programme of examination proving basic knowledge of teaching in apprenticeship training and the 2020 Regulation on the implementation of the exam proving basic knowledge of teaching in apprenticeship training.

One mentor can have up to 6 apprentices, ensuring that there are no more than 3 of them in the workshop at the same time.

Q25. Are there any sanctions on companies that do not provide training to apprentices at the workplace?

YES

NO

⑥ CONTRACT AND COMPENSATION

Q26. What is the status of the learner?

ONLY STUDENT

**ONLY
EMPLOYEE**

**APPRENTICE IS
A SPECIFIC STATUS
(STUDENT AND
EMPLOYEE
COMBINED)**

OTHER

The contract applying to the EMU/JMO scheme is not an employment contract. Therefore the status of learner is only student.

Q27. Is there any written arrangement between the learner and company, required as per regulation?

YES

NO

The apprenticeship contract is concluded in writing between the employer and the student (or his/her parents or guardian if the student is not of legal age). It is not a contract of employment.

The Ministry responsible for crafts regulates the contract content. The Contract governs the mutual rights, obligations and responsibilities between the employer and the student throughout the duration of the apprenticeship and in particular:

- The start and duration of the practical training and exercises at the workplace
- Working hours of the student at the workplace
- The duration of the vacations (daily and annual)
- Obligations of the employer regarding the curriculum
- Obligations of the student in practical training in a craft or legal entity (enterprise)
- The monthly allowance to be given to the student

The contract is regulated by the Regulation on the minimum conditions for apprenticeship contracts (Official Gazette 107/20).

Q28. What is the nature of the written arrangement?

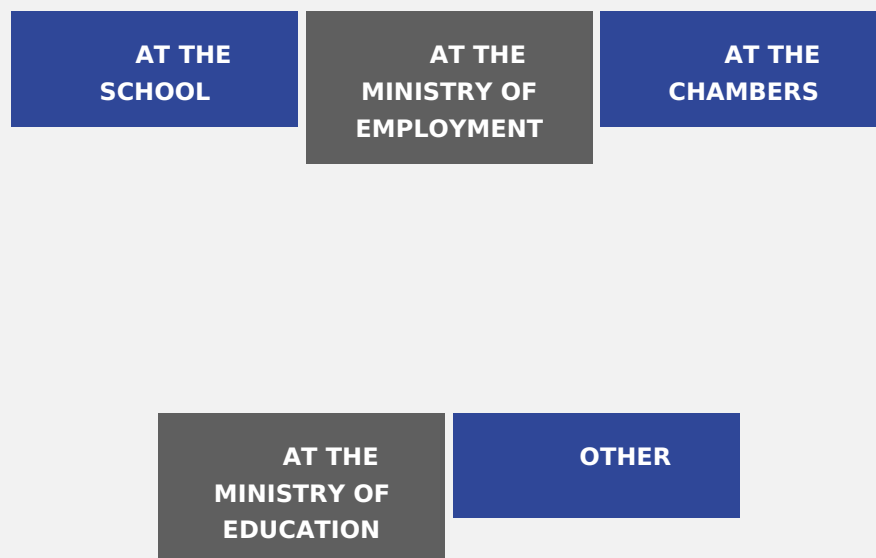


The contract is not covered by the labour act as it is not an employment contract.

The student has the right to receive a monthly allowance which is exempted from additional contributions for pension and healthcare.

The contract is regulated by the Regulation on the minimum conditions for apprenticeship contracts (Official Gazette 107/20).

Q29. Where is the contract or the formal agreement registered?



The contract is signed in four identical copies, which go to the student (parent or legal guardian), employer, the school and the Chamber of Trades and Crafts. The ministry responsible for crafts maintains a registry of apprenticeship contracts:

<https://enaukovanje.portor.hr/ugovori/home.htm>

The ministry's registry is public, but the contract is equally registered in the school and verified by the Croatian Chamber of Trades and Crafts.

Q30. Do apprentices receive a wage or allowance?

**YES, ALL
APPRENTICES
RECEIVE A WAGE
(TAXABLE INCOME)**

**YES, ALL
APPRENTICES
RECEIVE AN
ALLOWANCE (NOT
A FORM OF
TAXABLE INCOME)**

**APPRENTICES
RECEIVE A
REIMBURSEMENT
OF EXPENSES**

**NO FORM OF
COMPENSATION IS
FORESEEN BY LAW**

The Act on VET and the Regulation on minimal conditions for apprenticeship contract prescribe the obligation of employers to pay an allowance to the apprentice.

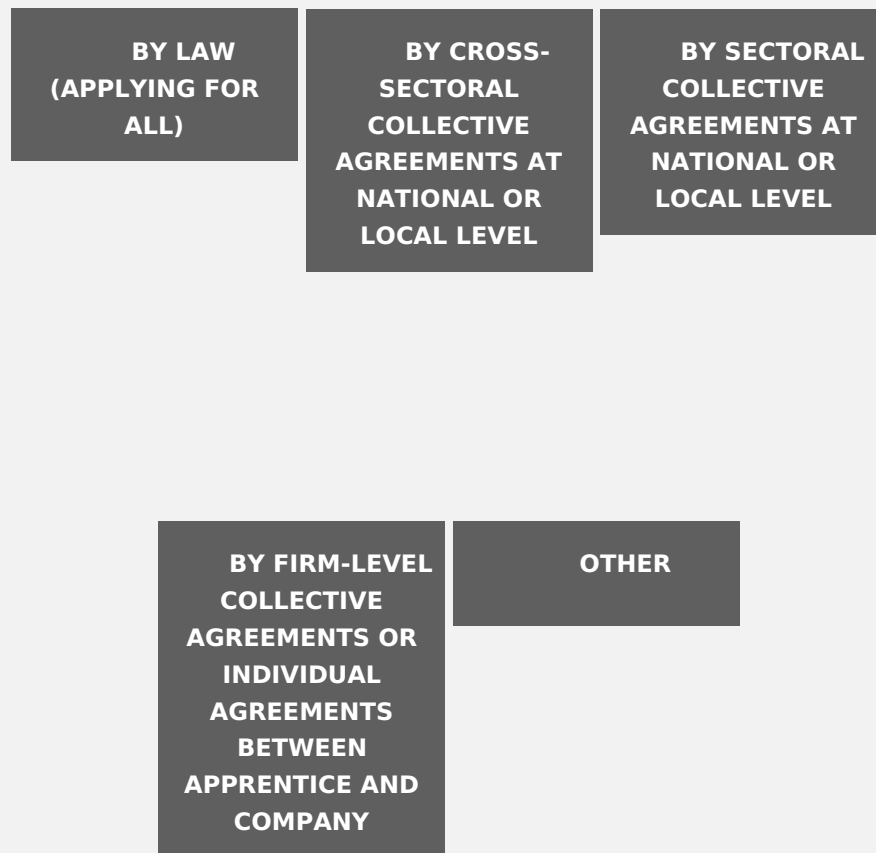
Every year, the Croatian Chamber of Trades and Crafts issues guidelines for the payment of allowances.

Calculations are based on the average net salary earned in the previous year: the allowance is set at 10% of the average net salary for students in the first year of apprenticeship, 20% in the second year and 25% in the third year.

The allowance is paid to the apprentice for the number of hours spent in the apprenticeship training in the company.

Employers can offer a higher allowance to their students/apprentices.

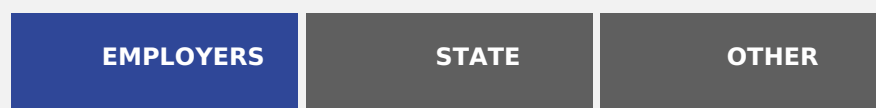
Q31. How is the apprentice wage (taxable income) set?



Not applicable for this question because the allowance paid to the apprentice is not taxable (set by law).

⑦ FINANCING AND INCENTIVES

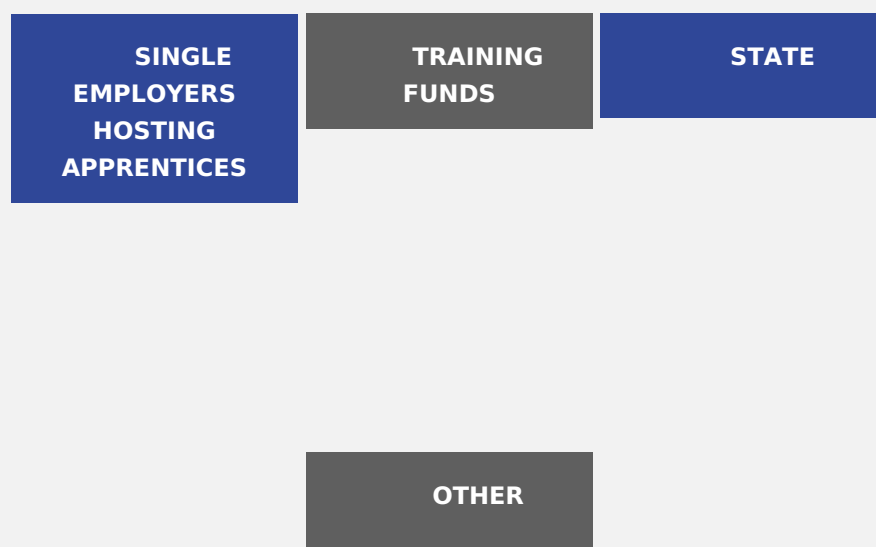
Q32. Who covers the cost of the wage or allowance of the apprentice?



Employers cover the cost of allowances of apprentices.

See Q34 for reimbursement possibilities for employers.

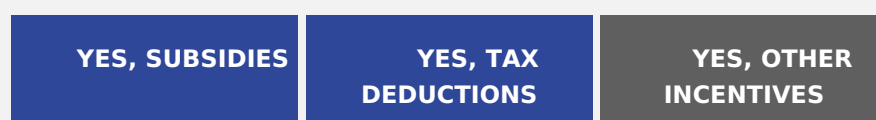
Q33. What are the sources of financing of the direct costs for the in-company training part of the apprenticeship scheme?



Employers pay allowances to apprentices, which covers their time of in-company training.

In the programming period 2021-2027 the Ministry of economy and sustainable development has planned a project for reimbursing costs of allowances and costs of material and tools. Scholarships are planned in the national budget by the Ministry of economy and sustainable development starting from school year 2023/24.

Q34. Are there any financial incentives for companies that offer apprenticeship places?



NO FINANCIAL INCENTIVES

The Act on State Aid for Education and Training (Official Gazette 109/07, 134/07, 152/08, 14/2014) provides tax breaks for companies employing apprentices. This allows reducing of the basis for the calculation of income-tax or self-employment tax.

In recent years, the Ministry responsible for Crafts published an open public call for grants for two projects via the European Social Fund:

- the open public call for "Lifelong education for crafts" (Cjeloživotno obrazovanje za poduzetništvo) which provides incentives to compensate the costs for acquiring licenses (accreditation) for apprenticeship training.
- "Apprenticeships for Crafts Occupations" (Naukovanje za obrtnička zanimanja) is aimed at micro, small and medium enterprises: the financial incentive can be used as compensation for the allowance given to apprentices, a fee for mentors and costs of material and tools used in the apprenticeship training.

In the programming period 2021-2027 the Ministry for Economy and sustainable development has planned a project for reimbursing costs of allowances and costs of material and tools. Scholarships are included in the national budget by the Ministry starting from school year 2023/24.

For more information on how this scheme is financed, see also Cedefop's Database on financing apprenticeships in the EU: <https://www.cedefop.europa.eu/en/tools/financing-apprenticeships/appren...>

Q35. Does the wage or allowance of the apprentice cover both the time spent at school and in the company?

YES

NO, IT COVERS
ONLY THE TIME
SPENT IN THE
COMPANY

Q36. Are there any incentives for learners?

**YES, GRANTS
PAID TO LEARNERS
TO TOP UP THEIR
REMUNERATION**

**YES, GRANTS
PAID TO LEARNERS
RELATED TO OTHER
COSTS (TRAVEL,
FOOD ETC.)**

**YES,
RECOGNITION OF
PRIOR LEARNING /
FAST-TRACK
OPPORTUNITIES**

**YES, GUIDANCE
OR LEARNER
SUPPORT**

**YES, OTHER
TYPES OF
INCENTIVES**

NO

In the previous programming period 2014-2020, scholarships for students enrolled in UME programmes for shortage occupations were provided through the ESF project (open public call published by the Ministry for Economy).