

**1. TITLE OF THE CERTIFICATE (HU)**

54-481-01 CAD-CAM informatikus

2. TRANSLATED TITLE OF THE CERTIFICATE (EN)CAD-CAM programmer
(THIS TRANSLATION HAS NO LEGAL STATUS)**3. PROFILE OF SKILLS AND COMPETENCES****A typical holder of the certificate is able to:**

- manage and operate computers;
- design and develop applications (software);
- interpret parts and assembly drawings;
- operate the used CAD software;
- prepare a 2D technical drawing using CAD software;
- prepare a 3D parts model in parametric CAD environment;
- prepare 3D assembly drawing in parametric CAD environment;
- prepare assembly drawing using CAD software;
- operate the used CAM software;
- design two and three axis machining with CAM software;
- simulate machining and make corrections based on the simulation;
- prepare a technological documentation;
- perform any corrections needed based on the simulation;
- fit a CAM-postprocessed CNC programme on finishing machine;
- prepare CNC programme for two and three axis machining;
- operate two and three axis CNC machine tool;
- perform geometry measurement tasks.

4. RANGE OF OCCUPATIONS ACCESSIBLE TO THE HOLDER OF THE CERTIFICATE3136 Draughtsperson, constructor
3142 Information and communications technology user support technician
3141 Information and communications technology operations technician**(*) Explanatory notes:**

This document is designed to provide additional information about the specified certificate and does not serve as a legal certificate of vocational qualification. The format of the description is based on the following documents:

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 on transparency is available at: <http://europass.cedefop.europa.eu/>

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5. OFFICIAL BASIS OF THE CERTIFICATE

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|---|---|------------------|---|---|-------|-----------------------|------------------------------|---|-------|-----------------------|--------------------|---|-------|-----------------------|---------------------------|---|-------|-----------------------|-------------------------|---|-------|---|--|---|--|
| <p>Name and status of the institute issuing the certificate</p> | <p>Name and status of the national/regional authority providing accreditation/recognition of the certificate</p> <p>Ministry of National Development</p> | | | | | | | | | | | | | | | | | | | | | | | | |
| <p>Level of the certificate (national or international)</p> <p>Level of vocational qualification according to the National Qualification Register: 54 advanced vocational qualifications, which require the completion of the secondary school leaving exam and may be obtained primarily in formal education</p> <p>ISCED2011 code: 4</p> <p>NQF level: 5</p> <p>EQF level: 5</p> | <p>Grading scale / Pass requirements</p> <p>Five -grade: 5 excellent 4 good 3 satisfactory 2 pass 1 fail</p> | | | | | | | | | | | | | | | | | | | | | | | | |
| <p>Certificate number: PT K</p> <p>Serial number: 123456</p> <p>Certificate issue date: 2023.10.02</p> | <p>Results achieved at the examination and their proportion expressed in percentage in the complex mark</p> <table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 20%;">Oral examination</td> <td style="width: 40%;">Professional knowledge related to computer assisted design and production</td> <td style="width: 10%; text-align: center;">5</td> <td style="width: 30%; text-align: center;">30.00</td> </tr> <tr> <td>Practical examination</td> <td>Prepare and present a thesis</td> <td style="text-align: center;">5</td> <td style="text-align: center;">15.00</td> </tr> <tr> <td>Practical examination</td> <td>Using CAD software</td> <td style="text-align: center;">5</td> <td style="text-align: center;">15.00</td> </tr> <tr> <td>Practical examination</td> <td>Preparing a CNC programme</td> <td style="text-align: center;">5</td> <td style="text-align: center;">20.00</td> </tr> <tr> <td>Practical examination</td> <td>Operating a CNC machine</td> <td style="text-align: center;">5</td> <td style="text-align: center;">20.00</td> </tr> <tr> <td colspan="2">Result achieved at the complex vocational examination, expressed in grades.</td> <td style="text-align: center;">5</td> <td></td> </tr> </table> | Oral examination | Professional knowledge related to computer assisted design and production | 5 | 30.00 | Practical examination | Prepare and present a thesis | 5 | 15.00 | Practical examination | Using CAD software | 5 | 15.00 | Practical examination | Preparing a CNC programme | 5 | 20.00 | Practical examination | Operating a CNC machine | 5 | 20.00 | Result achieved at the complex vocational examination, expressed in grades. | | 5 | |
| Oral examination | Professional knowledge related to computer assisted design and production | 5 | 30.00 | | | | | | | | | | | | | | | | | | | | | | |
| Practical examination | Prepare and present a thesis | 5 | 15.00 | | | | | | | | | | | | | | | | | | | | | | |
| Practical examination | Using CAD software | 5 | 15.00 | | | | | | | | | | | | | | | | | | | | | | |
| Practical examination | Preparing a CNC programme | 5 | 20.00 | | | | | | | | | | | | | | | | | | | | | | |
| Practical examination | Operating a CNC machine | 5 | 20.00 | | | | | | | | | | | | | | | | | | | | | | |
| Result achieved at the complex vocational examination, expressed in grades. | | 5 | | | | | | | | | | | | | | | | | | | | | | | |
| <p>Access to next level of education/training</p> <p>Advancement to higher education</p> | <p>International agreements</p> | | | | | | | | | | | | | | | | | | | | | | | | |
| <p>Other information concerning the vocational training process</p> | | | | | | | | | | | | | | | | | | | | | | | | | |
| <p>Legal basis</p> <p>Act CLXXXVII of 2011 on Vocational Training Decree 35/2016 (VIII. 31.) NFM of the Minister of National Development on the professional and examination criteria of vocational qualifications falling within the competence of the Minister of National Development.</p> | | | | | | | | | | | | | | | | | | | | | | | | | |

6. OFFICIALLY RECOGNISED WAYS OF ACQUIRING THE CERTIFICATE

| Description of vocational education and training received | Percentage of total programme % | Duration (hours/weeks/months/years) |
|---|---------------------------------|-------------------------------------|
| School-/training centre-based | Theory: 40 % Practice: 60 % | |
| Workplace-based | | |
| Accredited prior learning | | |
| Total duration of the education/training leading to the certificate | | 2 years |

Entry requirements:

- School-leaving examination

Vocational requirement modules:

10815-16 Introduction to information technology

10818-16 CNC machinery, programming

12000-16 Basics to CAM

10820-16 Basics to CAD

11997-16 Introduction to networks I

11625-16 Programming and database management

11999-16 English for Information Technology

11498-12 Employment I (for training courses built on secondary school-leaving examination)

11499-12 Employment II.

This certificate supplement was prepared on the basis of the instruction for filling in the Certificate Supplement published on the homepages of the National Reference Point and the National Europass Centre.

National Reference Point – NSZFH – <http://nrk.nive.hu>

Head of Examination Organiser:

Issue date: 2023.10.02

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