



## TRANSCRIPT OF RECORDS

### 1. PARTICULARS OF THE STUDENT

1.1. Family name: Kovács

1.2. Given name: Sándor

1.3. Place of birth (country, city): Hungary, Debrecen

Date of birth: 10 June 1999

1.4. Data related to student status:

Starting date of student status: 31 August 2021

Designation of student status: Active

(Expected) end date of student status: 30. 06. 2023.

1.5. Student identification number: 78217668244

Neptun code: UUZJ0G

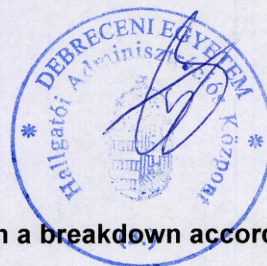
### 2. DATA RELATED TO THE PROGRAMME

2.1. Name of programme: Physics (MSc)

2.2. Level: MA/MSc

2.3. Type of programme: Full-time training

2.4. Language of the programme: Hungarian



### 3. Data pertaining to the requirements satisfied in the course of the programme, in a breakdown according to the programme periods

| Subject code | Subject name                                         | Requirement          | Lessons per week (W/<br>semester (S)) | Credits | Result        | Semester  | Transfer | Date       |
|--------------|------------------------------------------------------|----------------------|---------------------------------------|---------|---------------|-----------|----------|------------|
| TTFME0111    | Standard model of particle physics                   | Exam                 | H: 2/1/0                              | 4       | Excellent (5) | 2022/23/1 | -        | 09.12.2022 |
| TTFME0112    | Particle physics 2                                   | Exam                 | H: 2/1/0                              | 4       | Excellent (5) | 2022/23/1 | -        | 19.01.2023 |
| TTFME0133    | Phase transitions and critical phenomena 1.          | Exam                 | H: 2/1/0                              | 5       | Good (4)      | 2022/23/1 | -        | 15.12.2022 |
| TTFME0153    | Environmental physics 3                              | Exam                 | H: 2/1/0                              | 4       | Excellent (5) | 2022/23/1 | -        | 30.01.2023 |
| TTFME0163    | Nuclear Astrophysics                                 | Exam                 | H: 2/0/0                              | 3       | Excellent (5) | 2022/23/1 | -        | 23.01.2023 |
| TTFME0165    | Insight into the Present Day Nuclear Research        | Exam                 | H: 2/1/0                              | 4       | Excellent (5) | 2022/23/1 | -        | 20.12.2022 |
| TTFML0191    | Diploma Thesis 1                                     | Term grade           | H: 0/0/15                             | 10      | Excellent (5) | 2022/23/1 | -        | 13.01.2023 |
| TTFME0113    | Quantum Field Theory                                 | Exam                 | H: 2/1/0                              | 6       | Excellent (5) | 2021/22/2 | -        | 23.05.2022 |
| TTFME0132    | Computer modelling                                   | Exam                 | H: 2/1/0                              | 5       | Excellent (5) | 2021/22/2 | -        | 16.06.2022 |
| TTFME0151    | Radiation protection and dosimetry                   | Exam                 | H: 2/0/1                              | 4       | Excellent (5) | 2021/22/2 | -        | 09.06.2022 |
| TTFME0152    | Nuclear analytical methods in environmental research | Exam                 | H: 2/0/0                              | 3       | Excellent (5) | 2021/22/2 | -        | 10.06.2022 |
| TTFME0155    | Physics of the atmosphere                            | Exam                 | H: 2/0/0                              | 3       | Excellent (5) | 2021/22/2 | -        | 09.06.2022 |
| TTFME0162    | Nuclear Technology                                   | Exam                 | H: 2/1/0                              | 4       | Excellent (5) | 2021/22/2 | -        | 24.06.2022 |
| TTFML0156    | Measurements in environmental physics                | Term grade           | H: 0/0/2                              | 2       | Excellent (5) | 2021/22/2 | -        | 20.05.2022 |
| TTFML0164    | Nuclear Physics Laboratory                           | Term grade           | H: 0/0/4                              | 4       | Excellent (5) | 2021/22/2 | -        | 09.06.2022 |
| Munkavedelem | Work and Fire Safety Training                        | Report (two-scale)   | -                                     | 1       | Passed        | 2021/22/1 | -        | 26.08.2022 |
| SI-002       | Physical Education                                   | Lecturer's signature | H: 0/2/0                              | 0       | Signed        | 2021/22/1 | -        | 10.09.2021 |
| TTFME0101    | Atomic and molecular physics I                       | Exam                 | H: 2/1/0                              | 4       | Excellent (5) | 2021/22/1 | -        | 30.12.2021 |
| TTFME0102    | Quantum Mechanics 2                                  | Exam                 | H: 2/1/0                              | 4       | Excellent (5) | 2021/22/1 | -        | 13.12.2021 |
| TTFME0103    | Statistical physics 2                                | Exam                 | H: 2/1/0                              | 4       | Excellent (5) | 2021/22/1 | -        | 24.01.2022 |
| TTFME0104    | Particle physics 1                                   | Exam                 | H: 2/1/0                              | 4       | Excellent (5) | 2021/22/1 | -        | 22.12.2021 |
| TTFME0105    | Condensed matters 3.                                 | Exam                 | H: 2/1/0                              | 4       | Excellent (5) | 2021/22/1 | -        | 13.01.2022 |
| TTFME0114    | Theory of relativity                                 | Exam                 | H: 2/1/0                              | 5       | Excellent (5) | 2021/22/1 | -        | 18.01.2022 |



| Subject code | Subject name                                      | Requirement | Lessons per week (W/<br>semester (S)) | Credits | Result        | Semester  | Transfer | Date       |
|--------------|---------------------------------------------------|-------------|---------------------------------------|---------|---------------|-----------|----------|------------|
| TTFME0134    | Complex networks and their applications           | Exam        | H: 2/1/0                              | 5       | Excellent (5) | 2021/22/1 | -        | 20.12.2021 |
| TTFME0175    | Basics of functional renormalization group method | Exam        | H: 2/1/0                              | 5       | Excellent (5) | 2021/22/1 | -        | 23.12.2021 |
| TTFML0106    | Laboratory of Environmental Physics               | Term grade  | H: 0/0/4                              | 4       | Excellent (5) | 2021/22/1 | -        | 25.01.2022 |

If the number of lessons includes "/" signs, i.e. it is given in the format LE/PR/LA, then these figures indicate the number of lectures/practical seminars/labs.

The grading is in a five-point system:

excellent (5) - the student's knowledge covers the entire material and inner relationships within the same;

good (4) - the student knows the material and is capable of applying that knowledge;

medium (3) - the student knows the essential parts of the material, and is capable of applying that knowledge adequately;

low pass (2) - the student knows the essential parts of the material, and is capable of applying that knowledge at a still acceptable level;

fail (1) - the student is unable to prove that he/she knows and is capable of applying the essential parts of the material.

Qualifications - High pass (JMF), pass (M) or did not pass (NMF)

Pass/no credit - signed (A), not signed (NA)

Total number of credits earned: **105**

Total number of credits transferred: **0**

#### Credits earned per semester, grade point averages:

| Semester  | Number of credits registered | Number of credits earned | Stipend index | Corrected credit index | The aggregate corrected credit index | Credit index | Corrected academic average | Corrected weighted academic average |
|-----------|------------------------------|--------------------------|---------------|------------------------|--------------------------------------|--------------|----------------------------|-------------------------------------|
| 2022/23/1 | 34                           | 34                       | 4,85          | 5,5                    | 5,78                                 | 5,5          | 4,85                       | 4,95                                |
| 2021/22/2 | 31                           | 31                       | 5             | 5,17                   | 5,92                                 | 5,17         | 5                          | 5                                   |
| 2021/22/1 | 40                           | 40                       | 5             | 6,67                   | 6,67                                 | 6,67         | 5                          | 5                                   |

#### 4. AUTHENTICATION OF TRANSCRIPT

Debrecen, 22 February 2023

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