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| EVALUATION SHEET FOR UNIVERSITY **PROFESSOR APPLICATIONS** |
| Discipline: Natural Sciences |
| **MAB code: E**…… | **Name** and institution of Applicant |
| Evaluation criteria |
| I. **Higher education activities** (maximum score) | 100 |
| 1a.1. **Teaching experience** | Possiblemaximum score | Score obtained |
| ***Minimum requirement\* (10 points):*** The Applicant is required to have taught at least 200 contact hours of lectures in subjects related to the disciplines indicated in the application at any higher education institution during the ten years preceding the submission of the application. The teaching activity must be certified by the Applicant's direct superior. The relevant student feedback results for at least the last 5 years must be provided. In the absence of student feedback, the assessment of the Applicant's direct superior is also acceptable.

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| ***[[1]](#footnote-2)In the case of foreign Applicants***: instead of the Applicant's superior certifying the contact hours taught, other means of proof used in the particular country are also admissible. For example, a certificate from the dean's office, or an itemised list of the courses which yielded the contact hours stating the course titles, the name of the institution/faculty/subject, the level of education (bachelor, master, doctoral), and the date.With respect to student feedback on teaching activity, the information resulting from the processes of the given country must be taken into account. |

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| *Points for teaching activities:* 10 points are given for 250 contact hours, 20 points for 300 contact hours, 30 points for 350 contact hours, and 40 points for 400 contact hours. For higher education teaching performance, the minimum requirement of at least 200 contact hours of lectures is worth 10 points, and a maximum of 50 points can be given for 400 contact hours of lectures. Between the maximum and the minimum, the score is determined proportionally and must be rounded to the nearest whole number.A maximum of 10 additional points may be awarded for lectures of high importance (compulsory core subjects of BSc and MSc courses), for major lectures given at renowned universities abroad, and on the basis of student evaluations.A maximum of 25 (10+15) points may be given for contact hours where the Applicant did not attach student feedback or where student feedback result was below 3.50. In the absence of student feedback, the assessment of the Applicant's direct superior is also acceptable. | 40 |  |
| 1a.2. **Leading the academic and scientific work of students*****Minimum requirement\* (5 points):*** thesis supervisor, award-winning TDK thesis advisor 1-1 point (co-supervisor or co-consultant 0.5 point). Only finished procedures may be taken into account.

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| ***In the case of foreign Applicants:***student talent development activity (instead of TDK supervision). |

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| *Special criteria:* TDK or OTDK presentations, publishing jointly with students in peer reviewed domestic or international journals. In the context of consultant roles for TDK papers, only papers winning a TDK or OTDK award may be taken into account.  | 5 |  |
| Total (1a.1.+1a.2) | 60 |  |
| Written evaluation of performance, supported by specifics: |
| 1a.3**. Lectures, practice sessions and seminars delivered in a foreign language at graduate and/or postgraduate level** or at any level of learning in the Bologna system. | Maximum score | Score obtained |
| ***Minimum requirement\* (5 points):*** The Applicant is required to have delivered at least 80 contact hours (including guest teaching assignments at foreign higher education institutions) up to the date of submission of the application, as certified by the Applicant's direct superior.

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| ***In the case of foreign Applicants****:* in the case of non-native English speakers, the "foreign language" criterion may be replaced by a language relevant to international scientific communication (which is foreign to the Applicant). In the case of native English-speaking Applicants, since the language of international scientific communication is English today, giving lectures, practice sessions, or seminars in another language is not a requirement. Teaching activities as an invited or visiting lecturer conducted at a university outside the Applicant's country may be accepted, but 80 hours is not a minimum requirement. |

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| *Additional points may be given for:* The delivery of an additional 80 contact hours. | 5 |  |
| Total (1a.3.) | 10 |  |
| Written evaluation of performance, supported by specifics: |
| 1b. **Activities and achievements in education development** | Maximum scorepoints | Score obtained |
| 1b.1. ***Minimum requirement\* (5 points):*** The Applicant is course director of at least one compulsory (type "A") course or at least two optional (type B or C) courses at the time of submission of the application, confirmed by electronic data (faculty website, departmental website).

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| ***For foreign Applicants:*** overall responsibility for courses may be substituted for activities leading and/or managing programmes, courses or projects. (However, participation in research/development/innovation projects should be accounted for and evaluated under item 2b.) |

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| *Additional points can be given:* another 5 points for acting as course director for one subject, and 5 points for meaningful participation in the development of two more subjects (2 points per subject). | 10 |  |
| 1b.2. ***Minimum requirement\* (5 points):*** The Applicant must be the editor, first author, sole author or co-author of at least one coursebook or textbook, teaching aid or digital teaching material of 100 or more pages. If co-author, the Applicant must have contributed at least 50% of the total work. The requirement is also considered met if the Applicant is the sole author of a chapter of appropriate length in any of the publications mentioned above.  | 5 |  |
| *Special criteria for additional points that may be given:* Introduction of innovative contents/new methods, development of new training programmes in Hungary and/or abroad (5 points).Overall responsibility for a programme or specialisation (5 points); management experience (head of department, institute, senior position at a faculty or university) (5 points). | 10 |  |
| Total (1b.1.+1b.2.) | 30 |  |
| Written evaluation of performance, supported by specifics: |
| I. | Higher education activities | 100 |  |

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| **II. Scientific activity** (total number of points that can be awarded) | 100 |
| 2a.1**. Outstanding scientific or research work** (up to the submission of the application) | Maximum score | Score obtained |
| Internationally recognised, outstanding scientific achievements.***Minimum requirement\* (10 points):*** The Applicant must be the author (sole, first, last or corresponding) of at least five foreign language articles published in Q1 journals, or be the sole, first or lead (corresponding or final) author of an article published in an international journal ranked category A or B by the Hungarian Academy of Sciences in a relevant field. These parameters shall be fulfilled and evaluated taking into account the MTMT database.When assessing the impact of the publication activity, the criteria are considered to be met only if all numerical indicators specified for each discipline in the Appendix are met.*Special requirement:* In Mathematics, publication and citation performance should be considered according to the specific field of research in question.

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| ***For foreign Applicants:*** Publication in another language is not a requirement for native English speakers. For non-native English speaking Applicants, publication in a (foreign) language relevant to international scientific communication is required.  |

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| *Additional points may be awarded:* 115% 20 points; 130% 30 points; 145% 40 points; 160% 50 points.Scientific performance (2a.1.) shall be evaluated on the basis of the special discipline requirements detailed in the Appendix. In the specialty category, the Applicant receives 10 points for the minimum requirement (rounded 25% of the available score), and the maximum value is 50 points for 160%. Between the maximum and the minimum, the score is determined proportionally and must be rounded to the nearest whole number.If the Applicant is the head of a Lendület team of the Hungarian Academy of Sciences or has won an ERC or ERC Starting Grant, he/she is given at least 30 points in the field of scientific achievements (2a.1).Applicants who obtained the title Doctor of the Hungarian Academy of Sciences, or were awarded the ERC Consolidator/Advanced Grant or funding from the Forefront – Research Excellence Programme no more than 10 years before submission of the application are considered to have met the criteria for outstanding scientific or research work (2a.1) are to be given the maximum number of points (10+40). | 40 |  |
| Total (2a.1.) | 50 |  |
| Written evaluation of performance, supported by scientometric data or specific references to recognition, awards or other data: |
| 2a.2. **Supervising the scientific work of young academics, participation in doctoral training as thesis supervisor** | Maximum scorepoints | Score obtained |
| ***Minimum requirement\* (5 points):*** The Applicant has been a thesis supervisor to at least one doctoral student who has obtained his/her doctoral degree (as confirmed by the doktori.hu website). The supervision of at least one doctoral student who has obtained his/her doctoral degree might have taken place at a foreign institution. Where there is no PhD training, the assessment must take into account the Applicant's achievements in the education of the next generation of scholars, but the requirement regarding the number of PhD students who obtained a doctoral degree under the supervision of the Applicant is not applicable. | 5 |  |
| *Additional points may be given for:* Additional PhD students obtained his/her doctoral degree and/or postdoctoral fellows supervised by the Applicant (5 points each).In addition to the points given for a student who has obtained his/her doctoral degree, 3 additional points may be given for each currently supervised doctoral student and doctoral candidate, registered by the doctoral school, who are recorded by name in the database of the National Doctoral Council (or on the certificate from the foreign university for students who have studied abroad), including the expected year of obtaining their pre-degree certificate and degree.  | 15 |  |
| 2a.3. ***Minimum requirement\* (5 points):*** Substantial influence on the work of young academics, creation of an intellectual hub, which is publicly recognised by the professional community: leading role in at least one research team, or substantial participation in at least three research teams, or at least three individual research grants. Participation in research will not be taken into account if it is directly linked to the Applicant's job (e.g. as part of the duties to be performed).

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| ***For foreign Applicants:*** creation of an intellectual hub can be substituted by other student talent development activities, as well as prizes and awards (which, however, cannot be the same as those related to teaching activities listed under item 1a.2, e.g. activities substituted for activities related to TDK). |

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| 2a.3. ***Minimum requirement\* (5 points):*** Activity in the professional public sphere (e.g. as head or member of a professional committee at a university, as external member of a committee at another university, as member of a non-university professional body, as member of a university senate or faculty council, or as head or member of a professional committee at a university). | 5 |  |
| Total (2a.2.+2a.3.+ 2a.4.) | 30 |  |
| Written evaluation of performance, supported by specifics: |
| 2b.1. **Experience and achievements in research management** | Possiblemaximum score | Score obtained |
| ***Minimum requirement\* (5 points):*** Up to the date of submission of the application, the Applicant must have won at least one national or international research/development/innovation project in a competitive procedure, and must have managed the operation of the research team implementing the winning application.  | 5 |  |
| *Additional points can be given:* thesis supervision at further national or international competitions for 5 points, thesis topic supervision of institutional applications for 2 points. | 5 |  |
| Total (2b.1.) | 10 |  |
| Written evaluation of performance, supported by specifics: |
| 2b.2. **Recognition in Hungary and abroad** | Possiblemaximum score | Score obtained |
| ***Minimum completion \* (5 points):*** plenary speaker atinternational conferences 3 points, invited speaker 2 points, speaker 1 point | 5 |  |
| *Special requirement:* Head of domestic or international scientific organisation (5 points), member of board (3 points), conference chair or conference organiser (3 points), co-chair, section organiser, section chair, invited plenary speaker at conferences (1 point each).Prestigious international conferences, seminars and professional workshops organised by the Applicant in Hungary or abroad. | 5 |  |
| Total (2b.2.) | 10 |  |
| Written evaluation of performance, supported by specifics: |
| II. | Science | 100 |  |

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| Maximum score points:200 | **Final score:** | **I.****Teaching activities** | **II.****Scientific activities** | **I.+II.****In total** |
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| **The minimum score necessary for supporting the Applicant's appointment: 160**\* If the Applicant did not meet the minimum requirement for an item (any requirement, if there are more than one), then a score of 0 must be given for that item (e.g. 1b.1.). This means that no additional points may be given for the item in question. *(the appropriate one to be underlined:)* |
| The Applicant achieved the minimum score | **The application merits endorsement** |
| The Applicant did not achieve the minimum score | **Not supported** |

Appendix

Representative values for the discipline-specific publication indicators

**2a.1. The criteria for evaluating "Outstanding scientific and research** (achievements up to the date of submission of the application)", used in the assessment of applications for the title of Doctor of the Hungarian Academy of Sciences, are **considered to be met** only if all numerical discipline-specific indicators are met. Additional scores can be given for scientific metrics that exceed the indicators recorded here. The rate at which the minimum requirements are exceeded is calculated as the average of the surplus per indicator (e.g. if the number of publications is 125% and the number of citations 175%, the average surplus performance is 150%). The source of the list below is the Minimum Requirements for Doctor of the Hungarian Academy of Sciences. Last updated: September 1, 2022

Biological sciences

The minimum level of requirements in the field of **infra-individual biological research**:

Number of publications: **10**

Amount of IF where the Applicant is the first or the last one to be signed: **40**

The number of independent citations received for all publications of the Applicant, taken into account according to the MTMT: **300**

Minimum requirements in the field of **supraindividual biological** research:

Number of publications: **10**

IF amount where the Applicant is first or last author: **10**

The number of independent citations received for all publications of the Applicant, taken into account according to the MTMT: **250**

Physical sciences

Applicants conducting basic research, whatever their field of expertise, must have 200 effective independent citations. When calculating the effective citation, all independent citations of articles with a maximum of five authors are counted with full value. All independent citations of articles with more than five authors and up to ten authors should be counted with a multiplier of 3⁄4. Each independent citation of articles with more than 10 and up to 20 authors is considered with a multiplier of 1⁄2, and each independent citation of articles with more than 20 and up to 100 authors is considered with a multiplier of 1⁄4. With respect to citations of articles with more than 100 authors resulting from a large collaboration, only citations to articles in which the Applicant's leading role can be clearly demonstrated (with a weight factor of one), such as an analysis note, technical report, delegated or invited conference presentation on the subject of the article, should be included in the calculation of effective citations.

For Applicants with a strong focus on applied research, the minimum effective citation is 100. In addition, there should be publicly verifiable documentation of works published in non-scientific journals, as well as patents that have been granted and possibly implemented, or research reports and their application.

**Geological sciences**

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| Mineralogy and petrology, geochemistry, geology, geophysics, meteorology, paleontology |  |
| Full scientific publication | 35 |
|  Scientific publication by a lead author | 15 |
| Scientific publication in a peer-reviewed journal listed in WoS and/or Scopus | 20 |
| Number of independent citations | 160 |
| Number of independent citations in WoS and/or Scopus peer-reviewed scientific publications | 100 |
| Hirsch Index (based on independent citations)  | 8 |
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| Mining, geodesy and geoinformatics, natural and social geography |
| Full scientific publication | 40 |
| Scientific publication by a lead author | 20 |
| Scientificpublication published in peer-reviewed WoSn and/or Scopus journals | 8 |
| Number of independent citations | 140 |
| Number of independent citations in WoS and/or Scopus peer-reviewed scientific publications | 40 |
| Hirsch Index (based on independent citations) | 8 |
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Definition of terms:

Full scientific publication. MTMT distinguishes between the categories of full scientific publications (book, book chapter, journal article, atlas, map) and other scientific publications, the latter including publications in journals with unknown peer-reviewed status. The Section of Earth Sciences takes the values in the first category as a guide, but may also take into account the number of other scientific publications in the habitat assessment. Abstracts and scientific publications of restricted access (dissertations, theses) are not included in the evaluation.

Scientific publication by a leading author. In addition to the first author, the second, a corresponding or the last author, depending on the traditions of the discipline, may be considered the leading author (the traditions of the discipline may be taken into account in the evaluation).

Scientific book, monograph. A professionally peer reviewed publication of at least 48 pages (3 author's sheets of 16 pages each) (UNESCO) or more than 3 sheets (1 sheet = 40,000 characters) (NAVA), with an ISBN or ISSN number.

Independent citation. A citation in a scientific publication without any identity between the author of the cited work and the author of the citing work. Citations are not included in the doctoral process if their place of publication is:

* not a scientific journal,
* an un-peer-reviewed journal, unless it is included in the Section's list,
* published in a volume of conference proceedings,
* a publication of restricted access (dissertation, thesis).

Minimum requirement. Applicants must meet the minimum requirements set out in the table for their discipline. Otherwise, the application will be rejected, regardless of the outcome of the doctoral evaluation.

Chemical Sciences

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|  | Overall number of SCI publications and patents | Total impact (cumulative impact factor) | Number of independent SCI CITATIONS |
| Theoretical chemistry |  |  |  |
| Computational chemistry | 35 | 80 | 350 |
| Molecular structure |
| Thermodynamics |
| Other |
| Physical Chemistry |  |  |  |
| Catalysis | 35 | 80 | 300 |
| Chemical kinetics |
| Photochemistry |
| Coordination Complex |
| Surface Chemistry |
| Nanostructures |
| Chemical Dynamics |
| Colloid Chemistry |
| Electrochemistry |
| Other |
| Organic and Biomolecular Chemistry |  |  |  |
| Alkaloid, Flavonoid Chemistry | 35 | 80 | 200 |
| Peptide Chemistry |
| Carbohydrate Chemistry |
| Steroid Chemistry |
| Pharmaceutical Chemistry |
| Biochemistry, Chemistry of Biomolecules |
| Other |
| Inorganic and Nano-Metal Chemistry | 35 | 60 | 200 |
| Analytical Chemistry and Environmental Chemistry |  |  |  |
| Separation Science | 35 | 60 | 200 |
| Chemometry |
| Chemical sensors and electro-analytics |
| NMR, MS, X-ray and other spectroscopies |
| Spectrochemical Analysis |
| Organic and Pharma analytics |
| Environmental Chemistry |
| Clinical chemistry |
| Other |
| Materials Science and Chemical Engineering |  |  |  |
| Polymer and Plastic Chemistry | 30 | 40 | 150 |
| Pharmaceutical Technology |
| Materials Technology |
| Chemical Technology |
| Environmental technology |
| Nuclear Chemistry |
| Other |
| Food Chemistry and Biotechnology | 30 | 40 | 125 |
| Other | 30 | 40 | 125 |

Mathematical and Computer Science

In publications already published: at least 80 independent citations (a citing publication is counted as many times as many publications of the Applicant it cites); 30 different citations where the citing work is a monograph, a peer-reviewed international journal article, algorithm, software package, practical application that qualifies as a publication (a citing publication counts as one); 10 "quality" citations, i.e. references that not merely mention the publication but also, e.g. (partially) solves a problem raised by the Applicant, develops (generalises, improves, solving by another method), applies (uses in proof, algorithm, practical application) the result, method or even just discuss it. These 10 qualitative citations represent different monographs, articles in international journals, algorithms that qualify as publications, program packages and practical applications.

Meeting the quantified formal requirements means only that the Scientific Committee has given substantial consideration to the Applicant's research record, comparing it to the academic record of recent professors in the Applicant's field.

1. ***Foreign Applicants are:*** a) Applicants who are not Hungarian citizens, and b) Applicants who are Hungarian citizens working abroad on a long-term basis (more than five years). [↑](#footnote-ref-2)