*Doctoral School of Exact and Natural Sciences*

*Jagiellonian University*

*ul. Łojasiewicza 11, 30-348 Kraków*

Krakow, .............................

MA

/name and surname of doctoral student/

/album number/

**CERTIFICATE OF COMPLETION OF EDUCATION   
AT THE DOCTORAL SCHOOL OF EXACT AND NATURAL SCIENCES**

**OF THE JAGIELLONIAN UNIVERSITY**

I certify that **..................................................................................... MA**

/surname and first name of doctoral school student/

completed the education at the Doctoral School of Exact and Natural Sciences of the Jagiellonian University on the education programme .............................. as of ............................. in the discipline ......................................, field[[1]](#footnote-1) ..................................... and achieved the expected learning outcomes for the qualification at level 8 of the Polish Qualification Framework on the basis of the completed study plan and the programme/schedule for this education programme, included in the tables below:

|  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Aspects of activity** | **Courses completed\***  **(course name and code)** | **P8S\_WG** | **P8S\_WK** | **P8S\_UW** | **P8S\_UK** | **P8S\_UO** | **P8S\_UU** | **P8S\_KK** | **P8S\_KO** | **P8S\_KR** |
| **Learning outcomes arising**  **from the education programme** |  |  |  |  |  |  |  |  |  |  |
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|  |  |  |  |  |  |  |  |  |  |
|  | Active participation in academic life (e.g. active  and passive participation  in seminars, conferences, national and/or international internships, preparation of project proposals, organisational activities, etc.). | x | x | x | x | x | x | x | x | x |
|  | Conducting research and preparing a doctoral thesis | x | x | x | x | x | x | x | x | x |

**Optional:**

|  |  |
| --- | --- |
| **Aspects of activity** | **Description** |
| **Participation in training courses** |  |
| **Participation in traineeships** |  |

**\*Courses** **completed** - a list of courses as per the education programme and grade transcript, can be supplemented with additional courses.

*..........................................................................................*

*Stamp and signature of the education programme co-ordinator*

Legend:

**P8S\_WG** (knows and understands )

* to the extent allowing to revise existing paradigms, the world-wide body of knowledge covering theoretical foundations and general and selected specific issues – appropriate to the scientific or artistic discipline,
* major trends in the development of the scientific or artistic disciplines in which the training is given,
* research methodology,
* the rules for dissemination of scientific results, including through open access,

**P8S\_WK** (knows and understands )

* fundamental dilemmas of modern civilisation
* economic, legal, ethical, and other relevant determinants of scientific activity
* the basic principles for the transfer of knowledge to the economic and social spheres and for the commercialisation of the results of scientific activities and of the know-how related to these results,

**P8S\_UW** (can )

* use knowledge from different scientific disciplines or the arts to creatively identify, formulate and innovatively solve complex problems or perform tasks of a research nature, in particular:
* define the purpose and object of scientific research, formulate a research hypothesis,
* develop research methods, techniques and tools and apply them creatively,
* make inferences from scientific findings,
* critically analyse and evaluate the results of scientific research, expert activities and other works of a creative nature and their contribution to the advancement of knowledge,
* transfer the results of scientific activities to the economic and social spheres,

**P8S\_UK** (can )

* communicate on specialist subjects to the extent necessary for active participation in the international scientific community,
* disseminate the results of scientific activities, including in popular forms,
* initiate debate,
* participate in scientific discourse,
* use a foreign language at B2 level of the Common European Framework of Reference for Languages to the extent necessary for participation in an international scientific and professional environment,

**P8S\_UO** (can )

* plan and carry out individual and team research or creative projects, including in an international environment,

**P8S\_UU** (can )

* independently plan and act for their own development and inspire and organise the development of others,
* plan and deliver a class or group of classes using modern methods and tools,

**P8S\_KK (**is ready to )

* critically evaluate achievements within a scientific or artistic discipline,
* critically appraise one's own contribution to the development of that scientific or artistic discipline,
* recognise the importance of knowledge in solving cognitive and practical problems,

**P8S\_KO** (is ready to )

* fulfil the social obligations of researchers and authors,
* initiate actions in the public interest,
* think and act entrepreneurially,

**P8S\_KR (**is ready to )

* uphold and develop the ethos of the research and creative community, including: - conducting scientific activity in an independent manner,

- respect the principle of public ownership of scientific results, taking into account the principles of protection of intellectual property

1. In the case of an interdisciplinary or inter/multidisciplinary dissertation, specific disciplines/fields should be indicated [↑](#footnote-ref-1)