

Open Science System at the University of Pardubice

Article 1

Introductory Provisions

- (1) The Open Science System at the University of Pardubice determines the basic approaches of the University of Pardubice (UPCE) to the issue of open access to scientific publications (Open Access), to research data (Open Data), to peer review procedures (Open Peer Review), to the use of public licenses (Open Licensing), to source codes and plans of developed software and hardware (Open Source), to laboratory and research notebooks (Open Notebooks), etc.
- (2) The aim of the Open Science System at UPCE is the transparent and, as far as possible, unrestricted dissemination of the results of scientific, research and other creative activities carried out at UPCE in all forms. The University subscribes to the principle of "as open as possible, as closed as necessary".
- (3) Part of the Open Science System at UPCE is the correct licensing of all the results produced. In order for a result to meet all the characteristics of Open Science, a public license, especially the internationally known Creative Commons (CC) license, must be used. A list of available CC licenses is available at <https://creativecommons.org/about/ccllicenses/>.
- (4) The Open Science System at UPCE is defined in accordance with national legislative acts, European Union documents and recommendations of international organisations. These include:
 - a. UNESCO Recommendations for Open Science (Resolution of the 41st General Conference of the United Nations Educational, Scientific and Cultural Organization),
 - b. Directive (EU) 2019/1024 of the European Parliament and of the Council of 20 June 2019 on open data and re-use of public sector information,
 - c. European Commission Recommendation 2018/790 of 25 April 2018 on access to and preservation of scientific information,
 - d. National Policy of Research, Development and Innovation of the Czech Republic 2021+,
 - e. Strategic plan of the Ministry of Education, Youth and Sports of the Czech Republic for the period from 2021.

Article 2

Link to the Strategic Plan of the University of Pardubice

- (1) The Open Science System at UPCE is in line with the shared values of the UPCE academic community.
- (2) Strengthening the principles of open science is one of UPCE's strategic priorities under Priority 2: High-quality and respected scientific research and creative activities.
- (3) Activities are defined to strengthen the principles of open science:
 - a. Taking into account the nature of scientific research and creative activities and disciplinary practices, formulating a framework, strategy and tools for the implementation of the principles of open science and for the implementation of "Open Science 2.0" in accordance with the science policy of the Czech Republic. Setting up a methodology for determining the proportion of results published in the "Open Access" mode.
 - b. Raising the awareness of the general and professional public, partners and application practice about the activities, latest findings, scientific results and social contribution

of the scientific, research and creative activities of the University's departments. Promoting openness, popularisation and promotion of the results achieved in basic and applied research and supporting the improvement of the system of offering our services to the public.

Article 3

Open Access

- (1) The aim of open access is to provide permanent, free and immediate access to the results of scientific, research and other creative activities carried out at UPCE.
- (2) Open access applies to all scientific and professional publications that are employee works within the meaning of Section 58 of Act No. 121/2000 Sb., the Copyright Act, created while the author was an employee of UPCE. These include, for example, articles in professional journals, conference papers, monographs, book chapters, or other works of authorship.
- (3) The implementation of open access at UPCE takes place at least by depositing a machine-readable electronic copy of the final publisher's version or the final version of the peer-reviewed manuscript accepted for publication (i.e. in the version after incorporating the comments resulting from the peer-review process) in the UPCE Digital Library (<https://dk.upce.cz/>), no later than on the day of publication. The technical description of the method of storage is available in the UPCE Directive No. 3/2019 "Recording the results of creative activities of employees and students of the University of Pardubice in the internal information system of PBD." This directive also defines the cataloguing data (so-called metadata) of each result.
- (4) The UPCE Digital Library (<https://dk.upce.cz/>) provides access to the deposited publications under the terms of the latest available version of the Creative Commons Attribution International (CC BY) public license.
- (5) There are three basic ways to achieve open access - the gold, green and platinum open access routes. To ensure timely sharing of results, the output can also be published and made publicly available in advance of peer review in the form of a so-called preprint version.
- (6) Gold Open Access Route
 - a. The principle of the golden path is to provide open access to peer-reviewed publications directly to the publisher - Open Access Journals. Publishing in open access journals often involves the payment of Article Processing Charges (APCs).
 - b. Publication in Open Access Journals is encouraged in proportion to their quality. For an initial assessment, a screening using the Directory of Open Access Journals (<https://doaj.org/>) is recommended, as well as an assessment of the Article Influence Score (AIS) of the Journal Citation Reports Web of Science and the AIS quartile of journals.
 - c. Even for a result published according to the principles of the Open Access Gold Route, Clause (3) of Article 3 of this document must be met.
- (7) Green Open Access Route
 - a. The principle of the Green Route is to ensure open access by inserting an article into a publicly accessible repository (by auto-archiving the article) and then making it available in accordance with the terms of the licence.
 - b. At the UPCE, the Green Open Access Route is implemented through Clause (3) of Article 3 of this document.
- (8) Platinum Open Access Route

- a. The principle of the Platinum Route is publication with a sponsored publisher, which ensures immediate open access to the publication without the need to pay publication fees.
 - b. UPCE, as publisher, implements journals fully or partially under the Platinum Open Access Route. The current list of journals is available at <https://ojs.upce.cz/>.
 - c. All scholarly publications published at UPCE are assigned a persistent DOI (Digital Object Identifier).
 - d. Even for a result published according to the principles of the Platinum Open Access Route, Clause (3) of Article 3 of this document must be met.
- (9) Preprints publishing
- a. Preprints are scholarly publications that are shared publicly prior to peer review and publication in a peer-reviewed journal or proceedings.
 - b. UPCE supports the publication of publication outputs in the form of a preprint version, provided that the rules of the publisher of the journal allow this option.
 - c. The publication of the preprint version of the scientific output on UPCE is done by storing a machine-readable electronic copy of the preprint version in the UPCE Digital Library (<https://dk.upce.cz/>). In justified cases, an external pre-registration platform or preprint server can be used.

Article 4

Open Data and Research Data Management

- (1) The aim of research data management at UPCE is to ensure that research data is handled in full compliance with the FAIR principles throughout the research cycle.
- (2) Research data is defined as any information that has been collected, observed, measured, generated, or produced for the purpose of achieving, verifying, or reproducing research results.
- (3) FAIR principles define how to process, describe and preserve data so that it is efficiently Findable, Accessible, Interoperable and Reusable. FAIR data allow for correct verification of the correctness of conclusions reached, reuse of data once obtained, acceleration of the research cycle and the possibility of reproducing the scientific research process.
- (4) Research team leaders of research projects and leaders of research teams of creative activity projects are required to develop a Data Management Plan for their activities in accordance with the FAIR principles. The University's instance of the Data Stewardship Wizard (<https://upce.ds-wizard.org>) can be used to create a Data Stewardship Plan.
- (5) It is recommended to use discipline-specific repositories for storing research data. A list of registered repositories is available, for example, at the Directory of Open Access Repositories (OpenDOAR): <https://v2.sherpa.ac.uk/opensoar>. If a suitable subject or institutional repository is not available, general (orphan) repositories such as Zenodo (<https://zenodo.org/>), Figshare (<https://figshare.com/>), or Dryad (<https://datadryad.org/>) can be used. Repositories operated physically at UPCE are managed and administered by the Centre for Information Technology and Services.
- (6) A key means of managing research data is a good metadata description. UPCE subscribes to the general recommendations for metadata description of research results defined by the National Technical Library. The recommendations are available at <https://doi.org/10.48813/yt6w-6h15>.
- (7) UPCE subscribes to the European Open Science Cloud, whose main goal is to build a common research space with freely available services for storing, processing, sharing, analysing and reusing scientific data.

Article 5

Open Peer Review

- (1) Participation in peer-review procedures of publishers of scientific publications is a common job of academic and scientific staff at UPCE.
- (2) Open peer review is an umbrella term for a set of types of peer review that aim to make traditional ("blind", "double-blind" or "closed") peer review more transparent and accountable.
- (3) The aim of introducing open review procedures is to make the process more transparent, faster and more reliable. At the same time, it allows the work of reviewers to be valued.
- (4) An open review process meets one or more of the following characteristics:
 - a. Open identities - the identities of authors and reviewers are mutually known.
 - b. Open reviews - peer review reports are published together with the corresponding result.
 - c. Open participation - the wider community can contribute to the peer review process.
 - d. Open interaction - direct discussion between authors and reviewers is encouraged.
 - e. Open manuscripts prior to review (preprints) - manuscripts are made available immediately after submission for peer review.
 - f. Open platforms - the peer review process is provided by an entity other than that publishing the publication.
- (5) UPCE promotes the principles of open peer review, the use of open manuscript opportunities, the prioritization of publishers of peer-reviewed journals providing open peer review, and the involvement of academics and researchers in community activities related to open peer review principles.

Article 6

Open Source, Open Hardware

- (1) Design and development of software and hardware is a common job of academic and scientific staff at UPCE, especially in technical and economically oriented faculties.
- (2) The basis of the principles of open source and open hardware is the free and unrestricted access of the recipients of the technology to all its parts, i.e. not only to the source code, schematics of electrical devices and mechanical structures, but also to all other documentation (software documentation, test reports, analyses, etc.). The aim is to allow open study, unrestricted modification and dissemination of the developed software and hardware.
- (3) UPCE does not operate its own open source repository for source code and documentation. It is recommended to use industry-specific repositories. A list of verified repositories is available, for example, at the Open Source Observatory (OSOR): <https://joinup.ec.europa.eu/collection/open-source-observatory-osor/oss-repositories>. In justified cases, a repository of limited capacity can be set up physically at UPCE in cooperation with the Information Technology and Services Centre.
- (4) Good technical and user documentation of the technology is an important means of implementing the principles of open source and open hardware. UPCE subscribes to the documentation recommendations defined in the international standard ISO/IEC/IEEE 26514:2022 "Systems and software engineering - Design and development of information for users."

Article 7

Open Notebooks

- (1) Open (Lab and Research) Notebooks refer to open online sharing of research activity records made on an ongoing basis during the research activity. It is therefore expected that information on ongoing, unfinished and unsuccessful investigations, experiments, measurements, etc. will also be made public.
- (2) Open (Lab and Research) Notebooks facilitate understanding of the results of scientific, research and other creative activities, their publication without undue delay, and avoid filtering of information.
- (3) UPCE does not systematically operate its own tool for keeping open lab and research notebooks. It is recommended to use proven platforms for sharing open notebooks, such as OpenLabNotebooks (<https://openlabnotebooks.org/>), Jupyter (<https://jupyter.org/>), Zenodo (<https://zenodo.org/>), etc.