

Basics of scientific communication

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The material of this short course is designed to be presented within 16 academic hours and discussed with participants within another 16 academic hours. If presented as an intense course, it usually consists of five to six lectures, about 2 academic hours each. The lectures address the major steps of planning, writing, polishing and publication of classical research papers as well as preparation of oral and poster presentations to conferences. The material covers the process from the instant when enough research results exist to justify international publication:

- Planning of structure of the paper,
- Role, obligations and responsibility of authors,
- Choice of journal/collection, indexing of publications, impact factor,
- How to arrange the material in a coherent way,
- Sequence of compiling different parts of the manuscript,
- Structuring of the paper, titles, subtitles,
- Description of underlying/background data (method, experiment, theories),
- Formulation of results,
- Some items of style of writing
- Structuring of the body text of the manuscript, topical sentences, auxiliary titles,
- Design of illustrations, tables, auxiliary material,
- Internal/cross-referencing,
- Specific features of Introduction, Discussion and Conclusions,
- How to write a perfect Abstract,
- Literature review and list
- Why to cite: best practice and good tone of citing,
- Acknowledgements and redundant co-authors
- Final polishing of the manuscript,
- The meaning of keywords,
- Modern features (Highlights, Visual Abstract),
- Submission procedure, accompanying letter and associated information,
- The principles of peer-review,
- Reaction to Referees' and Editor's comments,
- Proofs: the last chance to improve the publication,
- Basics of preparation of presentations for public,
- Visual aids. Specific features of poster,
- Formulation of the message,
- Structuring the presentation,
- Common bugs in oral and poster presentations,
- Public discussion.

Recommended literature:

J.R. Matthews, R.W. Matthews, *Successful scientific writing*. Cambridge University Press (First published 1996; 6th printing 2012).

Yen Tsi Yang, *An outline of scientific writing*. World Scientific (First published 1995, 4th printing 2008).

The material is abridged from the standard course MMM 9010 *Writing for publication* in TalTech

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