



How important is it to introduce students to Research Integrity and Ethics?

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In March 24 the revisited edition of

The European Code of Conduct for Research Integrity

was presented by

ALLEA President Prof. G. Stock,

the lead author of the draft Dr. M. Hiney,

the chair of the ALLEA Permanent Working Group
on Science and Ethics Prof. G. Hermerén

to European Commissioner Carlos Moedas.



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The Code was originally published in 2011 jointly with European Science Foundation.



The revised Code addresses recent challenges originating from technological developments, open science, social media and other areas.

The revised Code is more focused.



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European Commission uses the Code
as a referent document in the **Horizon 2020
Model Grant Agreement.**



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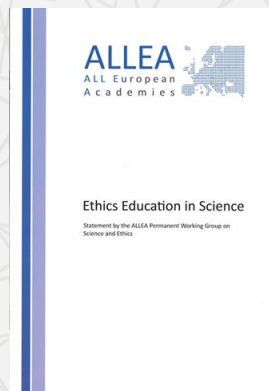
There is a special section (2.2) in the second part of the Code giving general view about **training** and **mentoring** of good research practice in research institutions and organizations.

NB! The guidelines on ethics education in science are presented in the special **Statement by the ALLEA Permanent Working Group on Science and Ethics** (published in 2013).

Important other documents are published by other organizations dealing with science and new technologies (European Group on Ethics etc.).



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„Trust in the scientific enterprise and in the conduct of scientific research is fundamental for fruitful interaction within community as well as between it and society at large“.



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Great challenges are facing contemporary science and researchers:

- Changes in the research and science organization
- Changes in professional relationships and extent of collaborative work
- Extended relations with society
- Increase the complexity of research methodology
- „Dual use“ threats
- Open access etc.



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Why the ethics education is of primary importance for students and young researchers?

Solid and sufficient ethics education at the beginning of scientist's career track:

- will **form a stable basis** for his/her further scientific activities
- **will exclude** the possibilities to practice research misconduct.



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AIMS OF ETHICS EDUCATION IN SCIENCE

Universities and research institutions must provide ethics education **in all fields of scientific research.**

This education should be **continuously updated** according to changes in science and society.

It is essential to follow the research subject specific standards and general research integrity standards.

Criteria that define good scientific practice are by no means self-evident, but they can be taught and learned.



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MEANS OF ETHICS EDUCATION IN SCIENCE

Ethics education focuses on the **critical examination** of arguments and on the **rational justification of ethical decisions.**

Ethics education is performed by seminars and lectures, examining and discussing **real cases** collected from scientific practice.

In teaching and learning process, the **crucial importance of case studies** is emphasised.

Subject-specific cases are important.

Online training could not replace in-person training.



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RECOMMENDATIONS FOR TRAINING

Education in research ethics must be included into **all graduate and doctoral studies curricula.**

Such education should be **specific and relevant to the research field** concerned.

Appropriate high-quality **staff** in research ethics should be made available.

The discussion among leading scientists and research ethicists is important **in every research field**, including research ethics itself.



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ASPECTS TO BE TAKEN INTO ACCOUNT

- research freedom
- extent of researcher's responsibility
- consequences of research

- behaviour in regard of human/animal research subjects
- communication accuracy
(the nature of fabrication, falsification, plagiarism and improper dealing)
- publishing
- norms of scientific integrity.



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