Focus on Peer Review: An Online Peer Review Course by Nature Masterclasses

Nature Publishing Group. URL: <https://masterclasses.nature.com/courses/205>

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Peer review is a critical element of the scientific communication process. Prepublication review is supposed to safeguard the integrity and relevance of new literature and improve the quality of a submitted manuscript. Whether the peer review process accomplishes these goals, however, is an open question.¹ Regardless, the act of peer reviewing is a learned skill, and there has been little opportunity for formal education in this academic area. The absence of peer review training may, in part, contribute to the concerns regarding the process.

Recently, a number of online courses have appeared to educate the fledgling peer reviewer. One such course, entitled *Focus on Peer Review*,² is offered via Nature Masterclasses. The course is divided into four modules: Your Role as a Peer Reviewer, The Peer Review Report, Ethics in Peer Review, and Innovations in Peer Review. Each module is composed of several sections (13–22 sections per module), each of which expounds on a major theme within the topic or a difficulty commonly encountered during a peer review. The course takes about two to three hours to complete, with logical stopping points throughout.

Focus (like other, similar offerings from Cochrane Eyes and Vision,³ ACS Publications,⁴ and Publons⁵) is free of charge and grants a certificate upon completion. The user interface is lean, intuitive, and easy to navigate. The course content is an engaging blend of multimedia, with a heavy dose of short interview-style videos featuring editors from Nature Research and experienced peer reviewers. The course discusses in detail the ethical considerations in peer

review and offers relevant case studies to help the user identify reviewer bias.

Within the module entitled The Peer Review Report, *Focus* is appropriately open-ended, reinforcing the variability in the expectations of different journals. Additionally, the course outlines new trends in the peer review process that aim to enhance transparency and diversity – a priority that is upheld well by the course itself.

Focus has some noteworthy weaknesses. Created by the Nature Publishing Group, this resource seems targeted for peer reviewers in the natural sciences. As a result, certain items that are given much attention (e.g., delegating peer review to postdoctoral fellows or suggesting additional experiments in a peer review report) may not be pertinent to peer reviewing for biomedical journals. Similarly, many important elements of contemporary peer reviews in biomedical communication – especially the use of the EQUATOR Network's suite of reporting guidelines⁶ – are not mentioned.

In conclusion, *Focus on Peer Review* offers strong treatment of ethical issues in peer review and a solid introduction to innovative peer review trends. Its focus on peer review for the natural sciences, however, falls short in providing practical tools required for a novice physician peer reviewer to construct a relevant peer review report. That said, *Focus* is an accessible, efficient, and enjoyable online course that can easily be adapted to biomedical peer review by consulting common reporting guidelines (e.g., CONSORT,⁷ STROBE,⁸ PRISMA⁹) and by seeking mentorship from experienced peer reviewers, journal editors, and authors.

Conflicts of interest None declared.

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