# How A Blended and Interactive Online Learning Courseware Enhances Bioethics Learning in Medical Education in a Flipped Classroom Approach

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## Abstract:

Our team has developed an interactive, multifunctional e-learning Courseware for teaching and learning Bioethics in the undergraduate medical program. Implemented in a flipped-classroom approach, our e-learning Courseware, CU-MED-IBIOETHICS, not only enhances student learning and engagement, but also strongly bridges the gap between art, bioethics and medicine. In this presentation, I will introduce our e-learning Courseware and share our team's experiences on how the e-learning Courseware and the flipped classroom benefit student learning in bioethics. First, a series of animated videos introducing selected topics of bioethics and related issues will be introduced. Then, a set of problem-based learning videos ("simulated doctor-patient role play") along with discussion questions and online platforms will be showcased. These activities introduced by our Courseware enable students to engage in the learning of bioethics, reproductive technologies and medical advancement technology and enhance their creativity. Moreover, the educational benefits of the online art exhibition, art jamming and competition will be discussed, through which students could express bioethics through arts and enrich their learning in medical research in an interactive, fun and entertaining way, strengthening their interests in bioethics. Furthermore, online survey questionnaires and focus group interviews were conducted. Through the use of this e-learning Courseware in a flipped classroom approach, we observed that students engaged more actively in classes and that students found learning bioethics more fun and interesting.

Taken together, our Courseware strengthens education in art, bioethics and medicine, significantly raises students' awareness of socio-ethical concerns from the advancement of medical technology, and provides a useful learning tool in bioethics in medical education.

**Keywords:** Bioethics, Courseware, e-learning, flipped classroom