

This project comprises a total of four narrated videos to help reinforce students' understanding of four important blood gas equations taught in a year 3 medical course (MEDU3400). The videos present multiple clinically based scenarios to reflect the application of the corresponding equations in real life. In all of the videos, the emphasis is on *why*, *what* and *how*:

- ✓ *why* the equation is important;
- ✓ *what* criteria need to be considered; and
- ✓ *how* to make use of the equation in selected case studies. Summary of the four blood gas videos

Video	Title of video	Individual webpage links
1	The PCO ₂ equation	http://facs.med.cuhk.edu.hk/site/2016/micromodule/BGE1/story.html
2	The alveolar gas equation	http://facs.med.cuhk.edu.hk/site/2016/micromodule/BGE2/story.html
3	The O ₂ content equation	http://facs.med.cuhk.edu.hk/site/2016/micromodule/BGE3/story.html
4	The Henderson-Hasselbalch equation	http://facs.med.cuhk.edu.hk/site/2016/micromodule/BGE4/story.html

As the project is newly developed, we have the obligation to obtain access rate of each video to prove usage. As a result, year 3 medical students can access each video via Blackboard that possesses the track function and simple analytics could be obtained in near future. However, our goal is always to facilitate flexibility and convenience in student learning and thus individual webpage links will be provided to student users once we have gathered some solid data in the first year of usage.