Prof **Rudolf Fleischer**

By introducing a number of small innovations which have complemented and reinforced each other, the result has been to produce an overall innovation that is much larger than the sum of its parts. More specifically, these small innovations involve two areas: ways of making learning active and 'assessment for learning' techniques that have a dual function of supporting active learning and removing barriers to surface learning approaches such as rote memorization.

The active learning techniques that Prof Fleisher has introduced include:

- substituting the 'tutorial as remedial lecture by TA' for 'tutorial as students presenting, defending, justifying and clarifying their solutions to problems' as a means of making misconceptions explicit and empowering students to provide improved solutions
- creating class representatives as a means of reducing the risk-taking with self-esteem inherent in active learning and thus increasing faculty-student interaction
- using small-scale problem setting or concept checking questions to be resolved through small group discussion during the lecture
- using hands-on application tasks that students can relate to but which provide opportunities to think in the algorithmic and creative way that is a must for professionals within their discipline

The 'assessment for learning' techniques that he has introduced include:

- marking for effort and thinking processes
- marking for knowledge and understanding only in the final exam
- using both self- and anonymous peer-assessment to deepen students' learning and improve critical thinking skills

The combination of active learning and assessment-for-learning is powerful and dispels the myth that "Hong Kong students are dumb" and replaces it with the challenge of "What type of learning environment brings out the effective learner within every HKUST student?"