

## 17 - Teaching Astronomy with interactive micro-modules

Tools / Services	Pedagogical Uses
<p>Camtasia Studio: A very user friendly software for PowerPoint recording. It can also be used for screen recording, and the powerful editing functions allow media captured with different software or hardware to be integrated into a comprehensive presentation seamlessly. The software is stable under long recording time such as in a lecture. Editing is simple and intuitive; output quality comparable to professional video editing software and very customizable to suit different platforms.</p> <p>Stellarium: An open-source night sky simulation software that enables the capturing of the simulated apparent motions of the Sun, Moon, planets and the stars seen at different times and places on the Earth. The interface more convenient to use than most of the sky simulation software. It generates high quality and realistic graphics of stars, deep sky objects and Milky Way at very speeds.</p> <p>Mathematica: A mathematical software that can generate accurate graphics and animation with relatively simple programming. User interfaces that enable the change in parameters are included in the manipulation modules, allowing high quality and customizable animations to be built in a very efficient way.</p>	<p>Part of the modules is derived from the syllabus of the course; they serve to supplement the lectures and provide further explanation to difficult concepts.</p> <p>The modules aim at helping students review what they have learnt in class and extending their horizon to related but more challenging topics. It is hoped that this approach will foster self-learning and the development of flip-classroom activities.</p>