The new NSW K-10 Science and Technology Syllabus mandates the integration of ICT to support a range of teaching, learning and assessment approaches. This provides great scope for the integration of new and emerging technologies in the design of immersive, authentic learning. Portable information gathering and processing opportunities, massive online databases and learning experiences based on individual strengths, all lend themselves to quality science teaching and enhanced learning opportunities for students.

Students come to secondary science classes with a range of experiences and high expectations about practical laboratory experiences. They often bring their own devices but have not yet experienced the range of possibilities available to them to foster their scientific curiosity.

The course will consist of a one-day workshop (5.5hrs) and a follow-on component (4.5hrs).

**Workshop** - teachers will participate in hands-on activities to:

» gain confidence with and the ability to integrate ICT meaningfully into learning and teaching to support the aims and objectives of the new Stages 4-5 Science syllabus

» use a variety of apps and software to engage students, explore science concepts and create products that demonstrate evidence of learning (some examples include use of QR codes; production of memes; using puzzling simulations of Rube Goldberg machines; tracking celestial objects; using augmented reality to investigate space probes; reporting using interactive infographics, comic strips and digital interactive books)

» engage with ‘real science’ (such as investigating weather, seismology, cosmology and rocketry) and confidently work with a range of information and communications technologies.

**Follow-on component** - participants will:

» design and deliver a lesson sequence demonstrating the integration of ICT

» prepare and implement an assessment task based on the lessons

» reflect, evaluate and report on these lessons

» share the report with other participants through an online forum.

Course Developer & Facilitator

Wayne Chaffey
A science educator for almost four decades, Wayne commenced teaching at James Ruse Agricultural High and retired from Moree Secondary College. He has taught Science in a range of schools and provided professional learning for teachers from K-12, mostly in regional NSW. He recognises the importance of ICT in effectively engaging today’s students and providing them with essential 21st Century skills.