Partnership

John Monash Science School, in partnership with the Victorian Department of Education and Early Childhood Development and Monash University, is pleased and proud to announce the launch of Emerging Sciences Victoria in 2015.

What do we offer?

ESV will offer 15-week courses in both Semester One and Semester Two in 2015 in:

- Frontiers of Physics - Astro and Quantum physics
- Nanotechnology and Nano Science
- Biotechnology and Bioinformatics

Semester Timings

**Semester 1 2015**
- Starts 2nd Feb 2015
- Ends 22nd May 2015

**Semester 2 2015**
- Starts 13th July 2015
- Ends 30th October 2015

Study Online, Interact with Peers and Teachers in Real Time!

Emerging Sciences Victoria will enable Year 10 Science students in government schools across Victoria to study an emerging science subject as part of their own courses. The aims of the ESV programs are to:

- deliver high quality, face-to-face learning experiences in a digital space
- engage learners in the study of Emerging Sciences
- increase student aspirations in Science as a career
- allow learners from different schools to learn collaboratively
- give young people the opportunity to engage with working scientists on the cutting edge of their field.

Students will be able to study these subjects from their home schools via a live, interactive video link to specialist teachers at the teaching studio at John Monash Science School. We
Who will this programme suit best?

The programs will be most suitable for those Year 10 students who are passionate about Science and wish to extend their knowledge into areas not part of the current Science curriculum in schools. Students who enrol in a course could be permitted by their school to replace an existing elective study with their chosen ESV study. Students will be expected to be on-line for both one-hour lessons each week, which will be delivered at set times during the normal school day. Students can be released from normal classes to attend these lessons, in much the same way as occurs for instrumental music lessons. We would expect these students to be able to catch up on any work missed.

Each participating school must have a liaison staff member who will provide appropriate locations within the home school for the students to undertake ESV lessons, with appropriate technology. The liaison staff will monitor attendance, assist students with the work if they can, and communicate with JMSS staff about the program. The liaison person can be a teacher or ES staff member.

provide access for all students to our learning platform using Google Apps for Education, realsmart (a learning and assessment portfolio), all with single sign-on access via a website and the Cisco Webex video classroom. Students will interact with real teachers and scientists in live classes, enabling them to engage with contemporary theories and research, to develop their understanding collaboratively within a statewide community of learners, and build relationships with teachers, academics and peers from other schools.

Learning with experts

JMSS teachers and visiting academics will facilitate each of these courses and expect all students to attend all lessons, and complete all set work. Students will be able to communicate with their teachers and each other through video stream, chat and Google collaborative apps. Every lesson will be recorded and students will be able to access those recordings on a private YouTube channel in order to revise or catch up on missed lessons. One of the outstanding features of ESV is that we are able to allow learners access to working research scientists who bring a dimension of aspiration, motivation and expertise which adds real value to school based science.
Through 2013 and 2014 learners interacted with expert scientists including Perry Vlahos (astronomer), Marion Anderson (geophysicist on the NASA Mars Rover landing site project), Graham Rosolen (CSIRO Principal Research Scientist in electron beam microscopy) and Helen Maynard-Casely (Planetary scientist at the ANSTO).

Our Memorandum of Understanding with DEECD gives us a three-year window to develop and sustain this program. The ESV initiative is built on the successful NVSES (National Virtual School of Emerging Sciences) trial model which JMSS developed in tandem with Monash University and Pearson Education throughout 2013 and 2014. The partnership between JMSS and Monash University is unique in education in Victoria, and has been responsible for the creation of an exciting contemporary curriculum in science which has brought the cutting edge of scientific research into the modern secondary classroom. True to the stated mission of both JMSS and Monash University, ESV brings significant aspects this innovative curriculum to all Victorian Year 10 students who are passionate about science. ESV is a wonderful opportunity to build capacity in our science students and their teachers.

All enquiries should be directed to enquiries@emsci.vic.edu.au. Expressions of interest are now open at www.emsci.vic.edu.au.

As the student numbers are capped for each course, schools are advised to make the necessary enquiries and allow their students to complete the enrolment process as soon as possible.

Peter Corkill
Principal