Spend a day on valuable revision of key concepts in the HSC Agriculture course and learn about current research you can use in the extended response questions in your exam.

Hear directly from agricultural, environmental and veterinary researchers from the University of Sydney’s School of Life and Environmental Sciences in a series of lectures, demonstrations and hands-on sessions, with the relevant HSC syllabus areas explicitly noted for each session.

Program and speakers

9am: Arrive and register

9.20am: Welcome and housekeeping

9.30am: Cottoning on to Plant Production
Associate Professor Daniel Tan
Cotton is a major industry in Australia, and research into the cotton plant is highly sought after to improve the ways we grow cotton and to prepare for the future. This session will delve into plant hormones, propagation, breeding and overcoming constraints on plant production, and will also consider sustainable resource management techniques employed by cotton farmers, including conservation farming and the use of organic fertilisers.

10am: Pain Relief: Addressing Animal Ethics and Welfare in Beef Cattle
Dr Sabrina Lomax
This interactive lecture will provide an overview of livestock management, with a focus on husbandry procedures and pain. Students will gain an insight into animal pain and welfare, using case studies to illustrate options for on-farm pain assessment and management.

10.30am: Morning tea break (please bring your own) and move to workshop sessions.

Date:
Thursday 9 June 2016,
9.20am–2pm

Location:
Liz Kernohan Conference Centre, 410 Werombi Road,
Camden NSW 2570

Cost:
$7 per student (includes BBQ lunch, course notes and workshop materials)

Register:
sydney.edu.au/science/outreach/high-school/agriculture-hsc-seminar

For more information
School Programs Coordinator
Outreach and Engagement
Division of Natural Sciences
T +61 2 9114 0825 | F +61 2 9351 7707 | E science.alliance@sydney.edu.au
sydney.edu.au/science/outreach
10.45am: Break out session – electives workshops
Depending on their elective unit of study, students will participate in one of the following three elective-based workshops.

Elective 1: Agri-food, Fibre and Fuel Technologies
Biotechnology in Agriculture
Dr Brian Jones
Recent discoveries have the potential to turn biotechnology and breeding on their heads. Explore some of the issues and practices surrounding the often controversial use of biotechnology in agriculture, and where it is heading.

Elective 2: The Climate Challenge
Carbon Dioxide Then and Now
Associate Professor Peter Franks and Dr Malcolm Possell
Students will examine the role of carbon dioxide as a greenhouse gas and its effects on atmospheric temperature and climate change. We will also explore the link between atmospheric CO₂ changes and global climate variability over long timescales. Students will have the opportunity to observe current research into reconstructing the history of atmospheric CO₂ concentrations and climate variability.

Elective 3: Farming for the 21st Century
Students undertaking this elective will cycle between three activities

Activity A: From Bleeding Edge to Leading Edge:
Making use of Data, Technology and Automation on Australia’s Farms
Dr Cameron Clark
Visit the Future Dairy for a demonstration of the automatic milking system and witness what farming might look like in the very near future.

Activity B: Digital Technologies in Beef and Sheep Production
Associate Professor Luciano Gonzalez
Students will have a first-hand glimpse at how technology is being used in animal agriculture. This session will demonstrate how drones, infrared thermography and GPS can be used to improve animal health, welfare, production quality and sustainable farming, and students will investigate current and future applications of the National Livestock Identification System.

Activity C: Getting it Right: Precision Agriculture for Sustainable Future Farming
Associate Professor Brett Whelan
Take a look at some of the technology being used to make broad acre farming more environmentally and economically sustainable. Students will participate in field demonstrations with state-of-the-art plant and soil sensors and will find out how GPS technology can be used on-farm.

12.15pm: BBQ lunch (provided)

1pm: What to Expect
Mr Tony Turner, Agriculture Teacher and HSC Marker, Muirfield High School
Hear about the HSC Agriculture exam from an HSC Agriculture examiner! Tony will provide some insights into the best way to answer particular questions and run through some past papers to help get your studies on track.

1.45pm: What will you Start Here?
Mr Paulo Olivares, Student Recruitment Officer (Natural Sciences), University of Sydney
Assumed knowledge, ATAR cut-offs, degree options, university life and the types of careers you can expect from science based training. Have your questions answered.

2pm: Finish

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