

INSECTS SHAPING SOCIETY: USING AN INTERACTIVE AND MULTIDISCIPLINARY TEACHING APPROACH TO ENGAGE STUDENTS DEEPLY

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Insects are immensely important for humans: they are food and medicine, they inspire architecture, song, myth, and language. Despite the clear importance of insects within human society, entomology is an underrepresented field in Australian Universities more broadly. By offering Insects Shaping Society as an undergraduate breadth subject, this subject increases excitement and engagement with insects. Excitement about insects is critical to bring knowledge and passion about their importance – especially now because the environmental impact of the human-centric Anthropocene has led to enormous insect declines.

The curriculum for Insects Shaping Society is organised around weekly case studies, delivered via pre-recorded materials and participatory seminars. The pre-recorded material allows the students to engage asynchronously with an array of information types, including traditional lectures given by an academic, interviews with external academic and industry experts, and clips from the media. The weekly seminars allow students to sustain close analysis on an insect case study through independent research, class discussion, debate, and interactive exercises. This rhizomatic learning framework allows the learners to build skills communication, knowledge literacy and argument formation—the key intended outcomes in this subject—and to increase their digital literacy via online instruction, the flipped classroom model, and independent research tasks.

Our curriculum approach uses a multidisciplinary lens; we organise the subject by topic, rather than field. As such, HASS and STEM topics are woven together and intermixed, rather than blocked together. This subject is about insects, but it also about how humans interact with insects and is therefore inherently interdisciplinary. We reflect this curriculum design in our teaching strategy, where each week, there are STEM and HASS topics are given equal weight. Furthermore, our two assessment streams are also interdisciplinary. The first stream consists of a three-part formative to summative assessment. The students develop of unique argument answering the question how to insects influence society? They first create a 3-minute minute video, which is then peer-reviewed. With those peer reviews and detailed instructor feedback they are able to develop their argument through an essay. The second stream of assessment is an open-ended final exam that contains broad thematic questions, which assesses their knowledge of the subject material and developing an argument with evidence. Our assessment streams match our rhizomatic learning framework, where each student can address these assessments using their own background knowledge interests and weave that together with the material we present. Our use of novel teaching techniques in tertiary education garners student interest in studying, researching, and making art about insect, thus breaking down barriers to protecting insects within our local and global environments.

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