N.U.in Australia: SUT Course Descriptions

The Global Experience
This course is an introduction to living and learning abroad. The main aim of this course is to help students prepare for, gain from, and reflect upon their term abroad as a profound global experience. Through workshops, seminars, course readings, discussions, and local civic engagement, the course will challenge students to become global citizens and ambassadors by actively participating in their own learning, local team and community, as well the greater study abroad community, Northeastern, and beyond. Ongoing, online reflection will help students to articulate their own experiences, respond to others’ experiences and ultimately make connections between global experiences around the world.

Academic Literacies: Situating University Knowledge
This unit aims to develop students’ understanding of, and skills for, learning at university and learning online. Using substantive knowledge areas as case studies, students will better understand academic practices and knowledge production, in order to develop good academic practice. They will use these skills to augment their studies in all discipline areas and be able to apply them to the workplace.

Australia: A Global Context
This unit of study provides international students from across the university with an introduction to Australian history, culture and politics, with particular emphasis placed on examining Australia’s changing place within the global community.

Calculus 1 for Science and Engineering
This unit of study aims to provide students with an introduction to differential calculus. Students who successfully complete this unit should be able to: calculate average and instantaneous rates of change and apply these for simple functions; calculate limits; find extrema and apply the mean value theorem in simple situations; find derivatives using the standard rules of differentiation; find derivatives for parametrized curves and apply this to motion problems; calculate derivatives for exponential and logarithmic functions and apply them in simple situations; calculate derivatives of standard trigonometric functions and apply them in simple situations; calculate derivatives of inverse trigonometric functions; solve simple optimization problems; apply l'Hopital’s Rule; find anti-derivatives using substitution; apply integration by parts; and use the definite integral and apply the fundamental theorem of calculus in simple situations.

Concepts of Biology with Lab
The objectives of this unit are: to develop an understanding of the fundamentals of biology; to develop an understanding of the structure and function of living organisms, their life processes, and diversity; and to provide a strong basis for later applications and extensions of this knowledge in various fields, including biotechnology, human biology, and the environment.

Energy and Motion
This unit of study aims to provide students with an introduction to the physics of energy and motion emphasizing their applications and importance in an engineering context. Students who successfully complete this unit should be able to: identify the symbols and units for a wide range of physical quantities, and describe their definitions; discuss the basic principles underlying the physics of energy and motion using both written and oral communication; apply the principles of energy and motion to solve conceptual and numerical problems in simple systems, and to understand real-world phenomena; safely execute experiments, analyze and interpret results and errors, and formulate conclusions as part of a team; and generate high quality individual reports.

General Chemistry with Lab
The objectives of this unit are: to provide a thorough introduction to the basic concepts of chemistry necessary for chemical, environmental, biochemical, and biotechnology studies; to provide knowledge of the basic structure of elements and compounds and how this determines their interaction with each other; to study various reactions elements and compounds undergo; to establish capability with quantitative problem-solving aspects of chemical reactions; to introduce essential practical skills for the handling and analysis of chemicals; and to establish the importance of chemical safety and precautions in the chemical laboratory and other hazardous environments.

Global Media Industries
This course will critically explore the issues surrounding the debates, concepts and practices which shape media industries in the context of globalization. This unit will look into how media industries and practices have been affected and reframed by recent political, economic, social, cultural and technological factors on a global scale. Through the study of theoretical concepts, scholarly debates and case studies, this unit will look into the issues surrounding media industries, content and practice at global, regional and national levels in different parts of the world.
Introduction to Media Studies
This unit aims to introduce students to textual analysis and cultural and social theories that include semiotics, language, and ideology by considering the way information is represented in the mass media. This enables students to acquire an understanding of media’s significant contribution to the formation of social and cultural attitudes. Students will also be introduced to some of the issues surrounding media ownership, as well as key movements in the arts.

Introduction to Philosophy
This unit of study provides an introduction to several major themes and thinkers in the philosophical tradition. Issues discussed include: mind and body, personal identity, free will and determinism, reality, knowledge, ethics and morality. In discussion, a primary aim is to apply what we learn from the study of these themes and thinkers to aspects of everyday experience, and on this basis come to a better understanding of who we are and of the possibilities for living open to us. The unit of study also fosters a range of analytical, critical and communication skills, valuable for both personal and professional development.

Philosophy, Politics and Society
This unit of study provides students with an introduction to key issues and debates in contemporary social and political philosophy, with particular reference to the problem of sustaining a just, egalitarian, and inclusive political order in the context of a multicultural, diversified, and pluralistic society.