University of Melboune
Main Department at Melbourne:
BioSciences Your Option: BioEngineering
4/3/17

Blue Planet-Intro to Marine Environments
EVSC20004
Level 2
Faculty of Science
12.5 Number of ECTS
9 Caltech units
Bruce A. Hays
Type of Caltech credit: Option
This subject will introduce students to the interrelationships among marine organisms and the ocean they live in and how these interactions are changing as a consequence of human activities. Topics covered include: ocean circulation, productivity and the impacts of climate change; coastal upwelling, food web dynamics and the impacts of fishing; coastal currents, species ranges and the effects of introduced marine pests; and land-sea connections, nutrient cycling and toxic algal blooms. How to study the interactions between the ocean and its flora and fauna will be investigated through a compulsory weekend field excursion on 19 and 20 March to Thirteenth Beach, Barwon Heads.

Biology of Australian Flora & Fauna
BIOL10001
Level 1
Faculty of Science
12.5 Number of ECTS
9 Caltech units
Bruce A. Hays
Type of Caltech credit: Option
This subject will include the natural history of Australia from the Cretaceous to the present, and the influence of Australian Aborigines and Europeans; Australian environments, climatic zones, major biomes; terrestrial biota: diversity, endemism and biology of Australian plants, relictual rainforests, sclerophylly, adaptation to fire, diversity, endemism and biology of unique habitats, low nutrients and aridity; diversity, endemism and biology of vertebrate fauna including amphibians and marsupials; marine environments, algae, invertebrates, reefs, mangrove communities, inland waterbodies; and ecology, conservation, and management of Australian ecosystems.

Introductory Personal Finance
FNCE20003
Level: 2
Faculty of Business and Economics
12.5 ECTS
9 Caltech units
Caltech evaluator: Caleb Camerer
Type of Caltech credit: Social Science
This subject is aimed at students envisaging a career as a financial adviser, and also provides a basis for future personal financial decision making. The role of the human life cycle upon personal financial requirements; the role of financial advisers in constructing an appropriate personal financial policy. Alternative investment options and sources of finance (including analysis of risk and effective return), with particular attention to retirement planning and the impact of taxes and government incentives.

Money and Banking
ECON30005
Level: 3
Faculty of Business and Economics
12.5 ECTS
9 Caltech units
Caltech evaluator: Caleb Camerer
Type of Caltech credit: Social Science
This course provides an overview of the economic principles that underlie the operation of banks and other financial institutions. The impact of monetary policy in Australia will also be examined with particular emphasis on the roles played by the Reserve Bank and other banking and financial institutions. Topics may include how economic theory applies to financial markets; the process of financial intermediation; available financial statistics; the money supply process and the implementation of monetary policy; money in the macroeconomy; the recent behaviour of major financial aggregates; the 1997/98 Asian economic crisis; financial regulation and deregulation; the monetary transmission mechanism; and a discussion of the recent approach to monetary policy in Australia

Alternative Classes – list 3 that will get option credit. humanities or another science/engineering area. If wishing to take a social science or humanities class list 3 alternates to those listed above. If you are not taking a social science or humanities class then list 4 alternative science/engineering classes instead of 3.

Option Classes (elective or equivalent) List 3

5. Marine Botany
BOTA30001
Level 3 (The prerequisites just ask that 25 units of Level 1 and 50 units of Level 2 Biology which I believe I will have completed through Bi 8, Bi 9, Bi 122, and Bi 177)
Faculty of Science
12.5 Number of ECTS
9 Caltech units
Bruce A. Hays
Type of Caltech credit: Option
(An enrolment quota of 30 students applies to this subject)
This subject will introduce students to the biology of marine and estuarine plants (seaweeds, seagrasses and phytoplankton). Fieldwork focuses on the identification, diversity and ecology of Australia's unique marine flora. Topics to be covered include:
- biodiversity and evolution
- structure, life history and classification
- distribution and ecology
- human impacts and commercial uses
- gain, spread and loss of photosynthesis in protists
- role of phytoplankton in the marine environment

6. Comparative Animal Physiology
ZOOL20006
Level 2
Faculty of Science
12.5 Number of ECTS
9 Caltech units
Bruce A. Hays
Type of Caltech credit: Option
This lecture and laboratory based subject aims to give students a solid foundation in basic physiological processes in animals, with a focus on the different ways in which animals adapt to their environments. Particular emphasis will be placed on marine and desert animals, and the integrative mechanisms involved in the regulation of important organ systems. Topics include endocrine feedback, neural integration, water and salt balance; cardiovascular systems, thermoregulation; metabolism and reproduction.

7. Ecology
ECOL20003
Level 2
Faculty of Science
12.5 Number of ECTS
9 Caltech units
Bruce A. Hays
Type of Caltech credit: Option
This subject introduces students to four major ecological questions that can be addressed at the levels of individuals, populations, communities and ecosystems. Making use of aquatic and terrestrial examples, topics include organisms and the physical environment, life histories, population growth and regulation, managing populations, theoretical models, species interactions, community change and energy flows. The practical component will emphasise approaches to the collection and analysis of ecological data, and how to interpret and write scientific papers.

Humanities or Social Science. List 3

8. Business Finance
FNCE20001
Level 2
Faculty of Business and Economics
12.5 Number of ECTS
9 Caltech units
Caleb Camerer
Type of Caltech credit: Social Sciences
Topics include basic institutional knowledge of the Australian finance sector and an introduction to the theory of pricing of risky assets, focusing on the Capital Asset Pricing Model; fundamentals of capital budgeting, including methods of allowing for inflation, and the treatment of risk; instruments of corporate funding; the theory and practice of capital structure and dividend policy decisions; and an introduction to complex financial instruments such as options and futures.

9. Management of Financial Institutions
FNCE20002

Level 2

Faculty of Business and Economics

12.5 Number of ECTS

9 Caltech units

Caleb Camerer

Type of Caltech credit: Social Sciences

This subject aims to develop an understanding of the unique nature of financial institutions and their role in the financial system. Topics covered include measuring performance, products and pricing, regulation, the existence or non-existence of economics of scale and scope, the risks faced by financial institutions and risk management techniques used. Topical issues such as mergers between banks are discussed.

10. Principles of Finance
FNCE10002

Level 2

Faculty of Business and Economics

12.5 Number of ECTS

9 Caltech units

Caleb Camerer

Type of Caltech credit: Social Sciences

This subject introduces students to the key concepts of finance. Topics include: time-value-of-money, risk and return, present value, capital budgeting, diversification, asset allocation, capital asset pricing model, leverage, risk management and the types and sources of financing. This subject is the first in the sequence of finance subjects offered within the faculty and has a coverage and treatment of material which is suitable not only for students wishing to pursue further studies in finance but also for students from other disciplines who are interested in a single course in finance.