



# UNSW3+ 2019

## Tailored Term 1

*January Intensive Courses*

### **BUSINESS**

#### **FINS1613 – Business Finance**

This is a first level corporate finance course that looks at the essential aspects of financial decision-making. The course begins with the different ways in which companies can be structured and the differing types of ownership that exist. Thereafter, the principles and applications of financial mathematics are introduced and used to value securities and investment decisions. Portfolio theory is used to provide a foundation for determining the relationship between expected risk and returns in financial and real asset investments. Dividend payouts and the choices between debt and equity financing, including methods of determining the cost of capital, are also covered. Further, this course includes analysis of the influence of the capital market environment, the implications of financial risk, taxation and the conflict of interest between managers and investors on the value and operation of businesses. The course develops distinct conceptual frameworks and specialised tools for solving real-world financial problems at both the personal and corporate level. Illustrations from real- life corporate practices are used to highlight the importance and relevance of financial management to the realisation of personal and corporate financial objectives. Examples include personal financial planning, funds management, capital raisings, portfolio selection of financial securities, private equity, public floats and the pricing of assets in the stock market.

#### **MARK1012 – Marketing Fundamentals**

This course introduces the student to the major concepts and theories, reflecting the breadth and diversity of marketing. It provides insights into where marketing fits within an organisation, its contributions to business in general, describes frameworks supporting marketing activities, and helps with challenges in the ever-changing market place. It discusses the application of this understanding to consumer goods, as well as service, business-to -business, industrial and non-profit organizations, and to the growing area of e- commerce. Topics include: marketing processes and planning, the use of market research, an understanding of consumers and customers, decision-making and the marketing mix, market segmentation, positioning and product differentiation, the changing global environment.

#### **MGMT1001 – Managing Organisations & People**

This course introduces students to the knowledge and skills required to successfully manage organisations and people in a global economy, based on contemporary research and practice. The course is designed to provide strong foundations for the development of future organisational leaders and managers

who will be able to successfully respond to complex and turbulent environments, promote and sustain competitive advantage, ensure ethical and social responsibility in business practice and decision making, and manage changing social, political and technological factors both inside and outside the organisation, in an increasingly global and diverse workplace. Topics include: the role of organisations in modern societies, sustainability and corporate social responsibility, the importance of organisational leadership, power and networks, sources of conflict, problem solving, group motivation and behaviour, as well as professional skills.

### **MGMT1101 – Global Business Environment**

This course examines key global environmental factors and issues impacting on the development of international business. Major topics include: globalisation of business; national differences in the political, social and legal environment, political and country risk; cultural differences and their impact on international business; ethical issues in international business; international trade issues; theory and politics of foreign direct investment; international competitiveness; the internationalisation of business activities and the development of multinational enterprises; foreign exchange markets; the international monetary system and development of the global capital market.

### **MGMT3721 – Business Negotiations**

This course provides a set of generic concepts and skills for negotiation and resolving interpersonal and inter-group conflicts. Students gain the opportunity to work with theory, skills and processes of negotiation relevant to a wide range of contexts: commercial; organisational; community; political and public policy; legal; and industrial relations. This course will provide an analytical understanding of negotiations, including negotiation planning, strategy and tactics, as well as the development of the practical skills necessary for implementation of this knowledge. Students will gain these practical skills through participation in negotiation seminars. The seminar programme is made up of negotiation role play exercises which develop in complexity as the course progresses.

### **TABL3044 – Comparative Tax Systems**

The course provides students with a comparative overview of the tax systems of various countries, with a view to developing a conceptual and practical understanding of the reasons why tax systems differ (and why they are sometimes so similar). The objectives of the course are to help students understand the characteristics that tax systems have in common, the areas in which tax systems differ, and the factors (legal, institutional, political, economic, social and cultural) that cause the similarities and differences. The course covers areas such as tax structures, tax at different government levels, different types of tax (including income taxes, consumption taxes, capital & wealth taxes, and environmental taxes), tax operating costs, tax administration and tax policy making and reform.

### **COMM3030 – Social Enterprise Practicum**

The UNSW Business School in collaboration with the Social Impact Hub are offering students an opportunity to undertake the Social Entrepreneurship Practicum, enabling students to put their business skills and knowledge to use in planning and implementing a real project in a field of social impact.

Students are required to attend the Social Impact Hub and work with a social enterprise or not-for-profit organisation on a real-world project in a field of social impact such as a social enterprise development, impact investing, impact measurement, philanthropy and human rights. You will gain invaluable practical experience while making a positive difference at the same time!

## **ENGINEERING**

### **COMP3331 – Computer Networks and Applications**

Networking technology overview. Protocol design and validation using the finite state automata in conjunction with time-lines. Overview of the IEEE802 network data link protocol standards. Addressing at the data link and network layers. Network layer services. Introduction to routing algorithms such as Distance Vector and Link State. Congestion control mechanisms. Internetworking issues in connecting networks. The Internet Protocol Suite overview. The Internet protocols IPv4 and IPv6. Address resolution using ARP and RARP. Transport layer: issues, transport protocols TCP and UDP. Application level protocols such as: File Transfer Protocol (FTP), Domain Name System (DNS) and Simple Mail Transfer Protocol (SMTP). Introduction to fundamental network security concepts, 802.11 wireless networks and peer to peer networks. There is a substantial network programming component in the assessable material.

### **COMP3411 – Artificial Intelligence**

Machine intelligence. Principles: knowledge representation, automated reasoning, machine learning. Tools: AI programming languages, control methods, search strategies, pattern matching. Applications: computer vision, speech recognition, natural language processing, expert systems, game playing, computer-aided learning. Philosophical and psychological issues. Lab: logic programming assignments.

### **COMP3511 – Human Computer Interaction**

This course provides an introduction to user-system interactions, both analysis and design. The approach is cognitive, focusing on matching user goals with computer technologies. Topics: the human information processing system, models of interaction, strategies for and process of design and evaluation. Project work is emphasised.

### **ELEC4122 – Strategic Leadership and Ethics**

Course topics include: theories of leadership; leadership of teams; organisational behavior; strategic planning; uncertainty and risk; the interaction of laws with engineering projects and innovations; the role of engineering in society; assessment of innovation in processes and products.; engineering ethics principles and practice; an introduction to ethical systems; the application of ethical frameworks to engineering practice with particular reference to electrical engineering and computing; codes of ethics in the professions; and social, political, environmental and economic considerations.

### **MMAN1300 – Engineering Mechanics**

This is the foundation engineering science course for all five plans in the School of Mechanical and Manufacturing Engineering, with content as follows: Revision of vectors, resultants and components, moments; The free body diagram; Equilibrium of planar rigid objects; Equilibrium of systems of co-planar multi-force members and planar trusses; Friction; Mass centre, centroids, distributed forces; Internal forces in beams; Introduction to 3-dimensional statics; Plane particle kinematics, including curvilinear and relative motion; Plane particle kinetics, including equations of motion, work-energy-power, friction, impulse-momentum, impact; Kinetics of systems of particles; Introduction to plane kinematics of rigid bodies, types of rigid body motion (translation, rotation about a fixed axis); Mass moment of inertia, parallel axis theorem, moment of inertia for various shapes, Introduction to plane kinetics of rigid bodies, rigid body in plane motion, equations of motion, work-energy for a rigid body.

### **MMAN2600 – Fluid Mechanics**

Course topics include: fluid properties; fluids in static equilibrium; buoyancy; pressures in accelerating fluid systems; steady flow energy equations; flow measurement; momentum analysis; dimensional analysis and similarity; pipe flow; incompressible laminar; turbulent flow in pipes; friction factor; laminar flow between parallel plates and in ducts; elementary boundary layer flow; skin friction and drag; pumps and turbines; and pump and pipeline system characteristics.

### **MMAN4410 – Finite Element Methods**

This course will train you to analyse real world structural mechanics problems using the finite element method. You will be introduced to the mathematical basis of finite element analysis, on which nearly all structural analysis software is built. You will learn how to apply commercially available finite element software to solve real-world engineering problems. The course will cater to the specific challenges of engineers across all mechanical disciplines (Aerospace, Manufacturing, Mechanical, Mechatronic and Naval). Any student wishing to extend their structural analysis skills should take this course.

## **ART & DESIGN**

### **ADAD2406 – Creative Experimentation**

'Creative Experimentation' is designed to help you experience the full potential of your own creativity by engaging in experimental art, design or digital media practices. You will also learn how to apply these principles of experimentation to your own area of study in this intensive course.

This course will extend your knowledge, research and technical skills through discourse and engagement in reflective practice and concept development. You will work with peers from a wide range of backgrounds such as design, science, medicine, creative artists, engineering, architecture, mathematics, etc., to develop practice-led research within the areas of emerging technologies. You will be guided in generating random data based upon a physical location, which you will visualise in different creative mediums. The result of this process will be a body of work through which you can demonstrate your experimental process, resulting in a

range of innovative, unexpected creative outputs. By engaging with this process using a range of emergent technologies, you will broaden your existing knowledge and skills, and develop a framework for experimentation that is current, innovative, personally meaningful, and professionally relevant.

### **SART1501 – Painting**

The aim of this course is to enable the student to develop skills and an intuitive awareness of aesthetic values in painting so that the student can use the discipline of painting as a means of individual artistic expression. The student will explore theoretical concepts and develop relevant skills as a basis for making paintings. The student will undertake projects aimed at encouraging an individual, creative and professional approach to painting.

### **SART1502 – Drawing**

This course will enable students to develop a command of drawing as a visual arts discipline and to relate the art of drawing to other areas of creative endeavour. The student will explore various aspects of drawing and develop competence and confidence in drawing. The student will undertake exercises which will emphasise drawing as a means of creative expression, and also as a tool of research in the visual arts.

### **SART1641 – Video Art**

These courses offer students the opportunity to gain an awareness of the nature and variety of experiences included in the television area, to appreciate the specific qualities and potential of the video and electronic media and to acquire the technical, intellectual and creative skills necessary for the creation of original video work. By exploration of a theoretical overview and the development of relevant skills the student will formulate and implement an extensive study of a field of practice within the area of Video.

### **SART2828 – Artists' Books**

This course will enable students to acquire skills in the production of artists' books, folios and other limited-edition publications. Examples of the different kinds of artists' publications will be examined. A variety of materials, skills and techniques, both traditional and contemporary, which are involved in book and folio production will be demonstrated. Students will have the opportunity to produce an artists' book.

### **SART3801 – Special Projects: Studio**

This course is intended to facilitate the School of Art & Design in developing its educational program for undergraduate students by incorporating such opportunities into the academic program. Specific course outlines will be distributed detailing the academic content, objectives, assessment tasks and criteria, modes of teaching and learning, expectations and requirements of student participation appropriate to the event/proposal.

### **SDES2188 – Ceramics: Wheel Throwing**

This course highlights a range of fundamental approaches and skills that underpin the multiple strands of contemporary ceramic practice. Practical work is contextualised within the historical and theoretical considerations/debates that frame contemporary ceramic practice. In particular, studio projects give

prominence to ideas and processes associated with the development of ceramic multiples and work in series, using the wheel as the principal tool.

## **SCIENCE**

### **BEES6601 – An Introduction to the Sydney Environment**

This course provides an introduction to the physical, biological and social environment of Sydney. Topics include the geophysical environment, the Indigenous people of Sydney, the natural and biological hazards of Sydney and the development of Sydney into a global city. The course also consists of a series of workshops which consider the contemporary environmental issues facing Sydney. A series of optional field visit(s) are designed to introduce the diversity of Sydney's biophysical environment. Note: Students have the option of participating in field visits and students may incur personal expenses. Details will be provided during the first week of the course.

### **GEOS1701 – Environmental Systems, Processes and Issues**

Are you interested in the natural environment and how humans interact with it? Understanding how different environmental processes influence atmospheric, physical and biosphere systems is crucial for understanding many environmental issues and is essential knowledge for careers in environmental science and related fields. This course covers a range of topics including climate and weather, landscape and soil evolution, hydrology, rivers and coasts, biodiversity and biotic patterns – both from global and Australian perspectives. Key environmental issues discussed include climate change and storms, land degradation, water resources and pollution, flooding, coastal erosion and bushfires. A major theme of the course is the interaction of humans with the environment and the causes of environmental problems and hazards. The course has a reputation for engaging lectures, uses innovative and interactive practical labs and a field trip to enhance an appreciation of a range of environments and issues.

Please Note: Students are required to take part in a field trip and students will incur personal costs. Details will be provided during the first week of the course.

### **SOMS1501 – Inside the Criminal Mind**

Serial killers, psychopaths, violent, and sexual offenders receive significant attention in the media, creating a particular fascination for people; they also consume significant resources in terms of their policing, prosecution, treatment, and punishment.

This course is aimed at those with a general interest in the forensic area who may wish to pursue a professional career or research in this fascinating field. This course complements existing offerings at UNSW such as undergraduate courses in medicine, psychology, social work, criminology, and law, as well as postgraduate courses in forensic mental health, forensic psychology, criminology and the law.

This course will be taught in an intensive mode by some of Australia's leading forensic psychiatrists, clinicians, and researchers from the forensic mental health services, police, corrective services, law, and forensic medicine.

This foundation course will provide participants with unique insights into the psychopathology of this high profile offender group. Taking a lifecycle approach, it examines the antecedents of offending, genetic influences, and the detection, prosecution, treatment, and punishment of this group. Real case examples will be used to illustrate offender groups such as Fred West, Jeffrey Dahmer, Peter Sutcliffe, Ted Bundy, Dr Harold Shipman, Ivan Milat, and Michael Bryant.

### **ANAT2521 – Evolution of Human Structure**

This course is offered in the summer semester and may be taken as a general education course by non Science/Med Sc students as there are no prerequisites. It can be taken as a Science elective by Science students.

The course focuses on topics in primatology, palaeoanthropology and physical anthropology that are particularly relevant to the evolution of human structure. It will be delivered by a combination of lectures, tutorials and practical classes, which will be held in the Gross Anatomy Laboratory (101) of the Wallace Wurth Building. Lecture topics range from “The Origin and Early Evolution of Primates” to “Modern Homo sapiens in the Old World” to “Language, Speech and the Human Face”.

Biology, anatomy and evolution of primates, early hominins through to modern humans will be covered. For detailed information on course topics, structure and assessment, please click on “course outline” in the box above.

### **MSCI0501 – The Marine Environment**

This course covers aspects of both the physical and biological environments of the sea and their inter-relationships. It depicts marine science as a body of knowledge and a process of continual enquiry and testing of ideas. It considers human impacts on the marine environments and how the principles and methods of science in general are used to predict and to solve the problems created by human activities.

The course includes discussion of: i) the marine environment, its physical, geological, chemical and biological characteristics and their interactions; ii) the sea as a source of human food. Attention is given to aspects of marine productivity, fisheries and mariculture and how science can assist in management for a sustainable yield; and iii) the effects of development, especially industrial development on the marine environment and how science can contribute to providing solutions to these problems created by development.

Throughout the course emphasis is placed on case studies. Field excursions are used to supplement the lectures and to encourage further discussion of the problems created by human interference in the environment and their possible solutions.

## **ARTS & SOCIAL SCIENCES**

### **HUMS1006 – Presentation and Communication Skills**

Speaking with confidence, telling a story, pitching a concept, engaging an audience and sharing ideas – these are essential skills for making your mark in the contemporary world. In this engaging course, you will learn presentation skills and communication techniques used by influential leaders, compelling storytellers and effective presenters. You will study examples of great storytelling by actors, motivational speeches by powerful communicators, and public speaking in professional practice. Practical workshops will introduce you to techniques of audience awareness, physical presence and vocal projection. By following examples and rehearsing in class, you will develop the confidence to present your ideas in an authentic voice and communicate your message with clarity and conviction.

## **AUSTRALIAN STUDIES**

### **ATSI1011 – Indigenous Australia**

In this course students will gain an understanding of the diversity of Aboriginal and Torres Strait Islander cultures, peoples and societies. A central focus of the course is the ways in which the philosophical frameworks of Indigenous knowledge systems continue to inform contemporary Indigenous practice that continues to shape Indigenous identities today. Taught from a range of perspectives, students will develop an understanding of social, cultural, political, economic, and ecological aspects of Indigenous Knowledge, which are key foundational elements to the Indigenous Studies Major.

### **AVIA/SCIF3900 – Aviation & Sustainable Tourism**

This course offers an introduction to concepts and tools necessary for understanding emerging challenges in the aviation-environment-tourism nexus. A field excursion to Lady Elliott Island will be undertaken with the objective of allowing students develop an inter-disciplinary understanding of the aviation-environment-tourism relations in the Great Barrier Reef. The field-based learning will emphasise teamwork, as well as independent observational and enquiry skills using remote eco-resort as a context. Broadly, topics will include issues at the interface of aviation and transport logistics, reef and marine ecology, and tourism economics and marketing. Students will engage in reflective learning through follow-up lectures and assignments during semester. Students should be aware that additional costs associated with the field trip will be incurred including return airfare to Lady Elliott Island, accommodation and food.

### **LAWsxxxx\* – The Australian Legal System in Comparative Perspectives**

A comparative course focused on the history and foundational institutions and principles that underpin the Australian legal system, explored in critical comparative perspective.

\* *JD: JURD7468 / PG: LAWS8168*