VU COLLEGE HANDBOOK 2016

DISCLAIMER

The information contained in Victoria University's 2016 VU College was current at 10 December 2015

In today's university environment, changes to courses occur far more frequently than in the past. For current information on Victoria University's courses, readers are advised to access the University's online courses database at www.vu.edu.au/courses

If you have difficulty in accessing this material electronically, please phone (03)9919 6100 for assistance.

IMPORTANT INFORMATION

The course details in this handbook (Plus details of all other Victoria University courses) can also be searched on the University's online courses database at www.vu.edu.au/courses

This handbook can be downloaded as a pdf file from the Victoria University website at www.vu.edu.au/courses/course-handbooks-and-guides

Published by Victoria University

PO Box 14428

Melbourne VIC 8001 Australia

WWW.VU.EDU.AU

HOW TO USE THIS HANDBOOK

Victoria University's 2016 VU College Handbook is designed to provide students with detailed information on course structures and unit details for undergraduate and postgraduate courses offered by the college in 2016.

The definition of fields used in course tables throughout this handbook include:

Credit Point – the number of credit points a unit contributes towards the total points needed to complete a course.

PLEASE NOTE

This handbook provides a guide to courses available within Victoria University's VU College in 2016.

Although all attempts have been made to make the information as accurate as possible, students should check with the college that the information is accurate when planning their courses.

NOTE: Prospective students are strongly advised to search the University's online courses database at www.vu.edu.au/courses for the most up-to-date list of courses.

This handbook includes descriptions of courses that may later be altered or include courses that may not be offered due to unforseen circumstances, such as insufficient enrolments or changes in teaching personnel. The fact that details of a course are included in this handbook can in no way be taken as creating an obligation on the part of the University to teach it in any given year or in the manner described. The University reserves the right to discontinue or vary courses at any time without notice.

OTHER INFORMATION

Information about course fees, articulation and credit transfer, recognition of prior learning, admission and enrolment procedures, examinations, and services available to students can be accessed on the University's website or by contacting the University directly.

CONTENTS

VU College

Diploma of Engineering VDEN

Diploma of Information Technology VDIT

Diploma of Business (Enterprise) WDBE

UNITS

VU College

Below are details of courses offered by the VU College in 2016.

This information is also available online on the University's searchable courses database at www.vu.edu.au/courses

NOTE: Courses available to international students are marked with the (I) symbol.

Diploma of Engineering

Course Code: VDEN
Campus: City Flinders.

About this course: The Diploma of Engineering is equivalent to first year of an undergraduate degree and provides direct entry to second year of Victoria University degrees in Electrical, Mechanical, Civil or Architectural Engineering. Graduating students who elect to continue into the Bachelor of Engineering are given 96 credit points of advanced standing. The supportive learning environment will give students a strong foundation skills and knowledge in areas of mathematics, physics, engineering practices and problem solving methods.

Course Objectives: On successful completion of the Diploma of Engineering, graduates will be able to:

- Integrate fundamental knowledge in mathematics, physics, statistics and information technology within the engineering discipline;
- Investigate and solve basic engineering problems utilising the latest technologies;
- Adapt theoretical knowledge applicable to the discipline, for innovative and sustainable engineering practices;
- Exhibit a range interpersonal and academic skills with a strong focus on development practice in an independent or collaborative environment;
- Determine professional ethics and accountabilities of their engineering practice.

Careers: Those students who have successfully complete the Diploma of Engineering program will be able to transfer into the VU Bachelor of Engineering degree of their choice via the internal course pathway transfer process. Additionally graduates from the Diploma of Engineering will also be eligible to apply for other Bachelor level programs. Graduates from the Diploma may seek employment in areas where entry level positions require strong technical and problem solving skills. The course itself does not have any external professional accreditations.

Course Duration: 1 year

Admission Requirements: Successful completion of an Australian Senior Secondary Certificate (VCE or equivalent) including Units 3 and 4 with a minimum study score of 25 English (EAL) or 20 in English (any) and at least 20 in any Mathematics.

Admission Requirements International: Successful completion of a secondary school qualification equivalent to Australia's Year 12 completed; PLUS IELTS (or equivalent): Overall score of 5.5 with no band less than 5.0.

Admission Requirements Mature Age: Applicants with relevant work, education and/or community experience will be considered for admission to the course.

COURSE STRUCTURE

To qualify for the award of Diploma of Engineering, a total of 96 credit points must be completed.

Year 1

Semester 1:

VEN1101	Engineering Mathematics 1	12
VEN1102	Engineering Physics 1	12
VEN1103	Engineering in the Community	12
VEN1104	Problem Solving for Engineers	12

Semester 2:

VEN1201	Engineering Mathematics 2	12
VEN1202	Engineering Physics 2	12
VEN1203	Engineering Fundamentals	12
VEN1204	Introduction to Engineering Design	12

Diploma of Information Technology

Course Code: VDIT
Campus: Footscray Nicholson.

About this course: This course helps you develop the skills and knowledge in a range of Information Technology fields allowing you to progress your qualifications and career in IT. Successful completion of the Diploma provides guaranteed entry into the second year of NBIT Bachelor of Information Technology. In this course you will:

- design databases;
- write computer programs in Python;
- schedule ICT development using Microsoft Project;
- connect databases to dynamic websites;
- use Linux and study towards CCNA.

Course Objectives: Upon successful completion of the Diploma of Information Technology, graduates will be able to:

- Apply a broad body of fundamental knowledge of information technologies in selected areas of study from the areas of: networking, ICT management, web application development, operating systems and database.
- Use the latest information technologies, and with self- learning capabilities, solve real-world ICT related problems.
- Exhibit a range interpersonal and academic skills with a strong focus on development practice in an independent or collaborative environment;
- Present foundation technical and theoretical knowledge and skills for industry certifications from reputable international vendors CISCO Certified Network Associate (CCNA) and Linux Professional Institute Certification (LPIC-1).

Careers: Graduates of this course find entry-level work in:

- computer and network support;
- website development;
- database management.

Course Duration: 1 year

Admission Requirements: Units 3 and 4: a study score of at least 25 in English (EAL) or at least 20 in any other English.

Admission Requirements International: Successful completion of a secondary school qualification equivalent to Australia's Year 12 completed; PLUS IELTS (or equivalent): Overall score of 5.5 with no band less than 5.5.

Admission Requirements Mature Age: Applicants with relevant work, education and/or community experience will be considered for admission to the course.

Admission Requirements VET: Any Certificate IV in Information Technology or equivalent.

COURSE STRUCTURE

To qualify for the award of Diploma of Information Technology, a total of 96 credit points must be completed.

Year 1

Semester 1:

VIT1101	Web Development and Cms	12
VIT1102	Introduction to Programming	12
VIT1103	Communication and Information Management	12
VIT1104	Computer Networks	12

Semester 2:

VIT1201	Introduction to Database Systems	12
VIT1202	Operating Systems	12
VIT1203	Introduction to Project Management	12
VIT1204	Web Application and Server Management	12

Diploma of Business (Enterprise)

Course Code: WDBE
Campus: City Flinders.

About this course: The Diploma of Business (Enterprise) provides students with the opportunity to prepare for the workforce, and undertake a structured introduction to tertiary studies in a business discipline context through scaffolded learning and assessment. Upon successful completion of the Diploma of Business (Enterprise) participants will be eligible to receive guaranteed 1 year block credit into the Bachelor of Business qualification at Victoria University. Students who opt to pursue an employment opportunity and not continue their tertiary studies will acquire a range of skills relevant in the business world to commence a successful career. This course is delivered in a blended delivery model. This model allows the students to take responsibility for their learning by accessing resources and completing activities in an online environment prior to attending a facilitated face-to-face session that progresses and applies the learning

Course Objectives: The Diploma of Business (Enterprise) aims to develop a broad range of business knowledge and skills in the areas of management, marketing, accounting, economics, communications and information technology. After successfully completing this course students can exit with a vocational Diploma or progress into the second year of the Bachelor of Business, in a chosen specialist area. This course is delivered in a blended delivery model. This model allows the students to take responsibility for their learning by accessing resources and completing activities in an online environment prior to attending a facilitated face-to-face session that progresses and applies the learning. Upon completion of the Diploma of Business (Enterprise) graduates will be able to: 1. Review and synthesise various business theories. 2. Analyse and address authentic contemporary problems in diverse domestic and international contexts. 3. Exhibit professional judgement by evaluating priorities, articulating key issues in business problems, and selecting and applying appropriate business tools to support decision-making. 4. Review social, cultural, technological and ethical factors that impact on contemporary business environments. 5. Work collaboratively in teams to analyse, plan, design and evaluate approaches to unpredictable problems. 6. Clearly and coherently express ideas and perspectives using verbal, written and visual modes of delivery appropriate for a range of business contexts. 7. Reflect lifelong learning attributes including autonomous, self-directed learning skills and habits.

Careers: This course is designed to provide a pathway to the second year of the Bachelor of Business. Students who wish to exit with the Diploma of Business (Enterprise) will have acquired a range of vocational skills relevant to working in the business sector.

Course Duration: 1 year

Admission Requirements: Units 3 and 4: a study score of at least 25 in English (EAL) or at least 20 in English other than EAL.

Admission Requirements International: Applicants must provide evidence of proficiency in the English language: International English Language Testing System (IELTS) result with an overall score of 5.5 or equivalent. Applicants must also have completed a secondary school qualification equivalent to Australia's Year 12.

Admission Requirements Mature Age: Applicants must possess appropriate educational qualifications, work or life experiences which would enable them to successfully undertake the course.

COURSE STRUCTURE

To attain the Diploma of Business (Enterprise), students will be required to complete:

- 96 credit points (equivalent to 8 units)

WDB1001	Accounting	12
WDB1002	Business Law Principles	12

WDB1003	Business Mathematics and Statistics	12
WDB1004	Economics	12
WDB1005	Information Systems	12
WDB1006	Marketing	12
WDB1007	Management	12
WDB1009	Professional Communications	12

UNITS

ITD1003 Networking

Locations: Footscray Nicholson, City Flinders, Interstate delivery with partner institutions Henan University, China; AMACU, Philippines.
Prerequisites: Nil.
Description: Covers fundamentals of modern data communication and internetworking infrastructure. Use network protocol models to explain the layers of communications in data networks. Student will design and build networks using routers and basic switches using classless IP addressing scheme. Mapped to CISCO certification - units Exploration 1 and 2 and progressing towards the CCNA and CCENT certifications.
Credit Points: 12
Learning Outcomes: On successful completion of this unit, students will be able to: 1. Explain how communication works in data networks and the Internet also explain the fundamental Ethernet concepts such as media, services and operation; 2. Employ basic cabling and network designs to connect devices; 3. Describe the importance of addressing and naming schemes at various layers of data networks and compare and contrast classful and classless IP addressing; 4. Describe the protocols and services provided by the OSI and TCP/IP models and explain how each layer operates in various networks; 5. Describe the purpose, nature, and operations of a router, its routing tables and the role of routing protocols in the context of modern network design; and 6. Configure a router, static and dynamic routing protocols and use commands to troubleshoot errors.
Class Contact: This unit will have 80 contact hours per semester
Required Reading: Required ReadingSchool of ICT, Participant Resource Guide-ITD1003, VU. Required Reading
Assessment: Exercise, Lab activities from CISCO Academy, 20%. Test, Skills Tests compulsory for CISCO Academy, 30%. Examination, Two tests towards Industry Certification – CISCO Academy Exploration 1 & 2, 50%.

ITD1004 Web Technologies

Locations: Footscray Nicholson, City Flinders, Interstate delivery with partner institutions Henan University, China; AMACU, Philippines.
Prerequisites: Nil.
Description: Plan, design and build an interactive, dynamic commercial website with the latest HTML standards and website development programs. Use JavaScript to provide client/side interactivity including validating forms and controlling browser windows. Create and apply CSS to develop page layouts and templates; Prepare and optimise images for websites and create simple flash animations. Students will research and review the appropriateness and quality of website design; based on a solid understanding of good design principles; user interface considerations; and accessibility issues.
Credit Points: 12
Learning Outcomes: On successful completion of this unit, students will be able to: 1. Understand and identify website goals, objectives and target audiences; 2. Analyse website outcomes for successful website planning and proposals; 3. Apply website objectives into creative website design; 4. Develop a live interactive website using HTML/HTML5 and CSS mark up language; 5. Demonstrate user-friendly principles through web interface design and accessibility; and 6. Enhance website interactivity through the use of Flash and JavaScript.
Class Contact: This unit has 80 contact hours in one semester
Required Reading: David, M 2010, HTML5: Designing Rich Internet Applications (Visualizing the Web), Focal Press.
Assessment: Exercise, Practical tasks, 20%. Case Study, Case study: Plan, design, build, enhance and test website, 80%.

ITD1005 Web Database Technologies

Locations: Footscray Nicholson, City Flinders, Interstate delivery with partner institutions Henan University, China; AMACU, Philippines.
Prerequisites: Nil.
Description: Develops dynamic web-based applications using server-side scripting technology including various concepts of multi-tier architectures. Students implement database connectivity; perform searches; add, update and delete records in web-based applications. Content-includes: fundamentals of server-side scripting, server-side object-oriented programming, database-connectivity, database query language, web server security.
Credit Points: 12
Learning Outcomes: On successful completion of this unit, students will be able to: 1. Describe the differences between client-side and server-side web technologies; 2. Use available resources to set up and maintain web server environment; 3. Describe and use various methods of maintaining the state of a web application; 4. Build server-side pages that connect to database, perform searches, update records, add and delete records; and 5. Secure and deploy the web site.
Class Contact: This unit has 80 contact hours in one semester
Required Reading: Stobart, S & Parsons, D 2008, Dynamic Web Application Development using PHP and MySQL, Course Technology.
Assessment: Assignment, Mid Semester Assignment, 40%. Assignment, End Semester Assignment, 60%.

ITD1006 Databases and Information Processing

Locations: Footscray Nicholson, City Flinders, Interstate delivery with partner institutions Henan University, China; AMACU, Philippines.
Prerequisites: Nil.
Description: Introduces fundamental business processing concepts underpinning the analysis and design of information systems. The unit covers the purpose of common business processes, source documents and process modelling. Students will use standard techniques to identify system requirements and design a simple database system. Content includes: systems concepts; common business source documents; Systems Development Life Cycle (SDLC), process modelling, Entity-Relationship (ER) modelling; relational database design using ER modelling, SQL (Structured Query Language), normalisation.
Credit Points: 12
Learning Outcomes: On successful completion of this unit, students will be able to: 1. Identify common information business processes and the common documents used; 2. Distinguish between several different system development lifecycles; 3. Create SQL (Structured Query Language) queries to extract data and manage data in relational databases; 4. Apply Entity Relationship modelling techniques of create logical designs for relational databases; 5. Apply normalisation techniques; and 6. Design simple Use Case diagrams to model system requirements.
Class Contact: This unit has 80 contact hours in one semester
Required Reading: Magal, S R & Word, J 2009, 1st Ed, Essentials of Business Processing and Information, Wiley. D'orazio, R & Happel; G 1996, Practical Data Modelling for Database Design, John Wiley & Sons.
Assessment: Test, SQL Test, 20%. Case Study, Data Modelling report on Case Study – Modelling data requirements using a Use Case and ER diagram, 40%. Examination, Final Exam covering all objectives, 40%.

ITD1007 Managing It

Locations: Footscray Nicholson, City Flinders, Interstate delivery with partner institutions Henan University, China; AMACU, Philippines.
Prerequisites: Nil.
Description: Covers managing IT services according to best practice processes for the support and delivery of high quality and cost effective IT solutions which underpin business processes. Effective management of Service level agreements to manage IT Services throughout the IT Service Lifecycle is discussed together with emerging technologies relating to Green IT and IT virtualisation. Utilise standard project management techniques and tools to control and successfully delivery IT Projects within scope, time and cost. Uses the software tools to help with planning, organising, monitoring and controlling the lifecycle of a project.
Credit Points: 12
Learning Outcomes: On successful completion of this unit, students will be able to: 1. Understand and document service desk functions; 2. Use Service Management best practice methodology to manage Incidents, problems and change; 3. Analyse and use of Service Level Agreements; 4. Describe the project life cycle and understand the fundamentals of managing projects; 5. Understand and explain best practice methodology approach to monitoring the quality of products created during the life of a project; and 6. Use Project application to manage project life-cycle.
Class Contact: This unit has 80 contact hours in one semester
Required Reading: SMF International 2007, ITIL Foundation IT Service Management Book. Van Haren Publishing. Schwalbe, K 2011, 6th Ed, Information Technology Project Management, Cengagebrain.
Assessment: Exercise, Lab tasks – ITIL Case Study, 20%. Case Study, Project management Assignment and presentation - Case study, 40%. Examination, Final Exam aligned to industry certification, 40%.

ITD1008 Operating Systems

Locations: Footscray Nicholson, City Flinders, Interstate delivery with partner institutions Henan University, China; AMACU, Philippines.
Prerequisites: Nil.
Description: An overview of modern operating system concepts and architecture, process and memory management and file systems. In depth practical case study will involve student in installation and setting up services and securing a Linux desktop based operating system. Students will interact with the operating system using advanced command-line processing and basic shell scripts. Contributes towards Linux professional Institute and/or Red Hat vendor certification.
Credit Points: 12
Learning Outcomes: On successful completion of this unit, students will be able to: 1. Identify the fundamentals of operating systems - memory, file systems, processes; 2. Plan and Install an operating system in a multi user environment; 3. Interact with the operating system using GUI desktop tools; 4. Use the command line to interact with the operating system; 5. Understand file systems and maintain basic file system security; and 6. Configure basic network connectivity and file sharing.
Class Contact: This unit has 80 contact hours in one semester
Required Reading: School of ICT, Participant Resource Guide-ITD1008, VU.
Assessment: Exercise, Practical Lab Tasks aligned to industry certification, 30%. Assignment, Install and configure operating system, 40%. Examination, Exam aligned to Industry Certification, 30%.

ITD1009 Introduction to Object Oriented Programming Concepts

Locations: Footscray Nicholson, City Flinders, Henan University, China; AMACU, Philippines.
Prerequisites: Nil.
Description: This unit provides knowledge of basic object oriented programming concepts and their application to develop, evaluate modify and test GUI based object oriented software applications. It also develops an understanding of the features of modern IDE based development software development including debugging, profiling, code generation and development of graphical user interfaces. Content includes: programming control structures, array-based algorithms, usage of predefined classes from libraries, problem solving methodology that includes defining the problem, designing a solution and implementing the solution; inheritance and basic polymorphism, developing GUI based applications, data validation, debugging, testing and documentation.
Credit Points: 12
Learning Outcomes: On successful completion of this unit, students will be able to: 1. Understand and apply basic language syntax and control structures; 2. Describe basic object-oriented language principles including inheritance and polymorphism; 3. Use a modern IDE to create, build and deploy GUI applications that use user-defined classes; 4. Solve problems using algorithms involving arrays and other built-in data structures; and 5. Test and debug and document programming applications Create and maintain documentation.
Class Contact: This unit will have 80 contact hours per semester.
Required Reading: School of ITCI, VU (2012) Participant Resource Guide - ITD1009
Assessment: Laboratory Work, Practical programming tasks, 20%. Assignment, Programming Assignment – Design, implement and test a Java-based application, 50%. Test, Written Test, 30%.

ITD1010 Communication for the Computer Professional

Locations: Footscray Nicholson, City Flinders, Henan University, China; AMACU, Philippines.
Prerequisites: Nil.
Description: This unit of study aims to develop a set of skills associated with oral, written, technical and online communication focusing on creative ways in which ideas can be presented, critiqued and debated as well as focussing on academic and technical communication skills. Students will be involved in locating and assembling reliable sources of information for collation and presentation. Students will use their research skills to research, evaluate and report on emerging issues relevant to the IT industry, in particular, dealing with issues related to the organisations code of ethics, protection on privacy, sustainability within IT and information security. Content includes: effective use of internet and search engines for information gathering; development of personal online portfolios; sound academic and technical writing skills; case studies relating to IT privacy professional ethics and sustainability within IT; career options in IT, job application development and interview skills.
Credit Points: 12
Learning Outcomes: On successful completion of this unit, students will be able to: 1. Research and report on emerging issues relevant to the IT industry and contribute to the development of a policy document in relation to sustainability in the industry; 2. Understand the meaning of code of ethics and privacy issues related to IT industry; 3. Develop personal learning pathways and extend and enhance personal portfolios. Prepare job applications and attend interviews; and 4. Use social networking tools to establish a professional presence.
Class Contact: This unit will have 80 contact hours per semester.
Required Reading: Guffey, M.E. & Loewy, D 2010 7th Edition Business Communications: Process and Product South-Western Pub.

Assessment: Portfolio, Personal Portfolio Assignment, 20%. Report, Report on emerging issues, 40%. Presentation, Report Presentation, 20%.

VEN1101 Engineering Mathematics 1

Locations: City Flinders.

Prerequisites: Nil.

Description: This unit of study aims to provide a basic understanding of integral and differential calculus and engineering applications of statistics. Students are encouraged to work in groups in tutorial classes where they can apply their lecture material to the solution of mathematical exercises and basic engineering problems. The unit begins with a consolidation of the student's knowledge of basic algebra including the solution of linear, polynomial, exponential and logarithmic equations. Calculus topics include differentiation, integration, definite integral, fundamental theorem of integral calculus and integration methods. Statistics topics include distributions, measures of variability and confidence limits, probability, mutually exclusive and independent events, permutations and combinations, binomial and Poisson probability.

Credit Points: 12

Learning Outcomes: On successful completion of this unit, students will be able to: 1. Solve a variety of mathematical functions; 2. Perform basic differentiation and integration; and 3. Apply calculus and statistical techniques to engineering-related problems.

Class Contact: This unit will have ninety (90) contact hours per semester including face-to-face facilitated sessions and online activities over a 15-week semester.

Required Reading: Hughes-Hallett et al. (2013) 6th edn, Calculus: Single & Multivariable, Wiley.

Assessment: Test, Short answer or multiple choice (online tests, approximately fortnightly), 20%. Assignment, Assignment, 30%. Test, Mid-semester Test, 20%. Test, Final Test, 30%.

VEN1102 Engineering Physics 1

Locations: City Flinders.

Prerequisites: Nil.

Description: This unit of study aims to provide a basic understanding of motion, vectors, Newton's laws and wave behaviour. In tutorial classes, students are encouraged to work in groups where they can apply their lecture material to the solution of physics and basic engineering problems. The unit begins with a general introduction to measurements and their uncertainties. The equations for one dimensional motion are then developed and extended to two and three dimensional motion. The concept of a force is introduced leading to Newton's laws including frictional forces. The study of simple harmonic motion, damping forces and resonance is followed by the topics of sound and light waves.

Credit Points: 12

Learning Outcomes: On successful completion of this unit, students will be able to: 1. Use kinematics to calculate displacement, velocity and acceleration; 2. Use Newton's laws to calculate forces and acceleration; 3. Apply the rules of conservation of energy and momentum to engineering-related problems; 4. Apply the principles of SHM and waves to engineering-related problems; and 5. Perform calculations on sound intensity levels and the Doppler effect in engineering-related problems.

Class Contact: This unit will have ninety (90) contact hours per semester including face-to-face facilitated sessions and online activities over a 15-week semester.

Required Reading: Halliday and Resnick, 2013, 10th Edition, Fundamentals of Physics, Wiley.

Assessment: Assignment, Problem solving assignment, 30%. Test, In-semester tests (approx. fortnightly), 30%. Test, Final test, 40%.

VEN1103 Engineering in the Community

Locations: City Flinders.

Prerequisites: Nil

Description: In this unit, students will explore the role and importance of engineering in society, at both the national and international level. This will include identifying issues facing engineers such as sustainability; existing trends and practices; and innovations to meet future challenges. Students will examine the development of engineering as a profession and look at the varying disciplines within the profession. This will enable students to establish their own learning and career goals and develop strategies to achieve those goals. Students will also examine the activities that constitute the engineering method, a problem-solving process, and apply the method to an identified problem. Case studies will be presented to students introducing them to descriptions of real situations that provide a context for engineers to explore decision-making in the face of socio-technical issues, such as environmental, political, and ethical issues. Students will work on a number of deliverables that will require them to work both individually and collaboratively, and communicate their work and findings in oral and written forms. Workshops, field trips, and presentations will form an integral part of the unit and attendance on those will be mandatory.

Credit Points: 12

Learning Outcomes: On successful completion of this unit, students will be able to: 1. Identify the key roles of engineering in the local and global communities, and understand the key features of the different disciplines of engineering practice; 2. Develop their own learning and career goals, and use self-management skills to plan and manage their work; 3. Recognise the professional responsibilities of engineers as well as ethical and sustainability issues in engineering practice; 4. Identify and interpret strategies for practising sustainable engineering and evaluate a solution in terms of environmental, social and economic costs and benefits; 5. Describe the engineering method as well as the activities that constitute this problem-solving process and apply the method to an identified problem; 6. Communicate effectively with others orally and in writing on a range of engineering-related topics using appropriate language; and 7. Work individually and with others, as both a team member and leader in both formal and informal teams, to complete tasks.

Class Contact: This unit will have ninety (90) contact hours per semester including face-to-face facilitated sessions and online activities over a 15-week semester.

Required Reading: Dowling, D, Carew, A, Hadgraft, R, 2013. 2nd edn. Engineering Your Future: an Australasian Guide. John Wiley and Sons Australia, Milton, Queensland. VU, College of Arts, 2013. 10th edn. Handbook of Communication Skills for First Year Students in the College of Engineering and Science. Victoria University.

Assessment: Essay, Individual Reflection Essay, 20%. Case Study, Individual Case Study Report, 30%. Presentation, Team Oral Presentation (15 minutes), 10%. Project, A Team Project Report, 40%. Total combined assessment word equivalence is approximately 3000 words. For any team assessment, a percentage of student's mark is based on observations of their contribution to the overall task, as such; attendance is mandatory in the workshops, field trips and presentations.

VEN1104 Problem Solving for Engineers

Locations: City Flinders.

Prerequisites: Nil.

Description: This unit is based on a series of problems designed to both introduce students to systematic problem solving methods and to build on and apply

knowledge introduced in other first year semester 1 units. The problems will focus on a range of issues related to engineering practice and sustainability. Students will be required to undertake data analysis and manipulation using various computing tools, including spreadsheet software and fundamental programming techniques.

Credit Points: 12

Learning Outcomes: On successful completion of this unit, students will be able to: 1. Apply fundamental knowledge of mathematics and science to solving engineering problems; 2. Plan and adapt systematic approaches to solving engineering problems; 3. Undertake data analysis and manipulation using various computing tools, including spreadsheet software and fundamental programming techniques in solving problems; 4. Identify, propose and initiate solutions to broad sustainability issues related to engineering problems; and 5. Work individually and collaboratively, as both a team member and leader, to complete tasks and evaluate own and others' performance.

Class Contact: This unit will have ninety (90) contact hours per semester including face-to-face facilitated sessions and online activities over a 15-week semester.

Required Reading: Jay Brockman, 2008, 1st edn., Introduction to Engineering: Modelling and Problem Solving, Wiley. VU 2013, College of Arts, 10th edn., Handbook of Communication Skills for First Year Students in the College of Engineering and Science, Victoria University, Melbourne, Australia.

Assessment: Assignment, Problem solving class activities, 30%. Case Study, Group report and presentation, 30%. Test, Four (4) Class Tests, 40%. For any team assessment, a percentage of student's mark is based on observations of their contribution to the overall task, as such; attendance is mandatory in the workshops.

VEN1201 Engineering Mathematics 2

Locations: City Flinders.

Prerequisites: VEN1101 - Engineering Mathematics 1

Description: This unit of study aims to provide a basic understanding of matrix methods, first order differential equations, complex numbers and infinite series and their application to engineering problems. Students are encouraged to work in groups in tutorial classes where they can apply their lecture material to the solution of mathematical exercises and basic engineering problems. Calculus topics include partial derivatives, first order linear differential equations (DE's), separable DE's, integrating factor, first and second order linear DE's in engineering applications. Simple, double and complex roots of auxiliary equations will also be covered.

Credit Points: 12

Learning Outcomes: On successful completion of this unit, students will be able to: 1. Use matrices to solve simultaneous linear equations; 2. Apply first order and second order differential equations to engineering-related problems; 3. Perform simple complex number calculations; 4. Test series for convergence and use MacLaurin method to generate power series; and 5. Apply partial differentiation to engineering problems.

Class Contact: This unit will have ninety (90) contact hours per semester including face-to-face facilitated sessions and online activities over a 15-week semester. Students are expected to complete an additional hour each week of out-of-class study in order to complete all assessments for this unit.

Required Reading: Hughes-Hallett et al. (2013) 6th edn, Calculus: Single & Multivariable, Wiley.

Assessment: Test, Short answer or multiple choice online tests, approximately fortnightly, 20%. Test, Mid-semester test, 20%. Assignment, Problem solving assignment, 20%. Examination, End-of-semester examination, 40%.

VEN1202 Engineering Physics 2

Locations: City Flinders, Note: Students will be required to attend labs at FP.

Prerequisites: VEN1102 - Engineering Physics 1

Description: This unit continues with the concept of forces studied in Physics 1, beginning with a consolidation of the student's knowledge of the gravitational force and the idea of "action at a distance". These principles are then applied to electrostatic forces and the magnetic forces produced by moving charges as well as electromagnetic induction. The unit concludes with the topic of thermodynamics including temperature, thermal expansion, heat capacity, specific and latent heat, ideal gases, work and heat in the thermal process, first law of thermodynamics and an introduction to heat engines.

Credit Points: 12

Learning Outcomes: On successful completion of this unit, students will be able to: 1. Apply principles of electric and magnetic fields to engineering-related problems; 2. Calculate the forces acting on charged particles in electric and magnetic fields; and 3. Apply principles of heat and temperature to engineering-related problems.

Class Contact: This unit will have ninety (90) contact hours per semester including face-to-face facilitated sessions and online activities over a 15-week semester.

Required Reading: Halliday and Resnick, 2013, 10th edn., Fundamentals of Physics, Wiley.

Assessment: Assignment, Problem solving assignment, 30%. Test, In-semester tests (approximately fortnightly), 30%. Examination, End-of-semester examination, 40%.

VEN1203 Engineering Fundamentals

Locations: City Flinders, Note: Students will be required to attend labs at FP.

Prerequisites: Nil.

Description: This unit of study aims to provide a basic understanding in the two broad areas of statics and electrical fundamentals. The following topics are covered in two parts: Part A - Statics: Part A introduces the concept of force, resultants and components, levers and moments. Free body diagrams, 2D and 3D statical equilibrium concepts are covered. Part A further explores the analysis of pin jointed trusses, statically determinate beams/shafts including loads, reactions and internal forces. Bending moment and shear force diagrams are also studied and applied. Part B - Electrical Fundamentals: Part B begins with an introduction on Ohm's and Kirchhoff's laws. Series and parallel resistor circuits are analysed and their equivalent resistive circuits are developed. DC sources are studied. Part B examines the analysis of single and multiple loop circuits as well as voltage dividers. The Nodal Voltage method, the Principle of Superposition, Thevenin's Theorem, Norton's Theorem, and equivalent circuits will be emphasised. Part B concludes with a discussion on diodes and voltage amplification in electrical networks.

Credit Points: 12

Learning Outcomes: On successful completion of this unit, students will be able to: 1. Evaluate states of statical equilibrium for objects subjected to forces/couples in two/three dimensions, including external 'freebody' force/couple diagrams; 2. Assess internal forces in simple pin-jointed trusses, beams and frames including axial force, bending moment and shearing force diagrams; 3. Apply Ohm's law and Kirchhoff's laws in single and multiple loop circuits; 4. Analyse DC circuits by Nodal Voltage Method, the Principle of Superposition, Thevenin's Theorem, and Norton's theorem; 5. Calculate voltage amplification in electrical circuits; and 6. Collaborate with team members to solve problems, undertake basic Engineering analysis and design, and write technical lab reports.

Class Contact: This unit will have ninety (90) contact hours per semester including face-to-face facilitated sessions and online activities over a 15-week semester.

Required Reading: Hibbeler, 2010 12th edn in SI units Engineering mechanics: statics

Singapore, Pearson/ Prentice Hall

Assessment: Laboratory Work, Laboratory Reports, 20%. Test, In-semester tests (approximately fortnightly), 40%. Examination, End-of-semester examination, 40%.

VEN1204 Introduction to Engineering Design

Locations: City Flinders.

Prerequisites: Nil.

Description: This unit is based on a series of problems designed to both introduce students to the design process and to apply knowledge introduced in other Year 1 units of study. The problems will therefore emphasise creative thinking in design, generating and evaluating alternatives against a range of technical, environmental, social and economic criteria, and making the final design decisions. The unit also incorporates a module on professional drawing practice including projections and views, dimensioning, different drawing types and using computer-aided design (CAD) software.

Credit Points: 12

Learning Outcomes: On successful completion of this unit, students will be able to: 1. Apply a systematic approach to engineering design; 2. Find, organise and evaluate information on a range of topics related to problems in engineering design; 3. Identify and evaluate technical, environmental, social and economic factors impacting on the solution of engineering design problems; 4. Use computer-aided design (CAD) software to develop and present design solutions; 5. Communicate effectively with others orally, in writing and by means of engineering drawings; 6. Demonstrate an ability to learn individually and collaboratively in a team environment; and 7. Use a personal reflective journal and demonstrate improvements in their effectiveness as learners.

Class Contact: This unit will have ninety (90) contact hours per semester including face-to-face facilitated sessions and online activities over a 15-week semester.

Required Reading: Vallero, D.A, and Brasier, C, (2008) Sustainable Design: The Science of Sustainability and Green Engineering Richmond: Wiley VU, Faculty of Arts, (2013) 10th edn Communication Skills Handbook for First Year Students in the Faculty of Health, Engineering and Science Melbourne: Victoria University

Assessment: Report, Teamwork including technical reports and presentation (approx 1000 words per team member), 45%. Portfolio, Individual portfolio (additional 1000 words), 25%. Test, 2 Short individual tests on design in class, 10%. Test, CAD skill tests, 20%.

VIT1101 Web Development and Cms

Locations: Footscray Nicholson, Footscray Park, This unit is available at Henan University..

Prerequisites: Nil.

Description: This unit provides an introduction to coding web sites and the use of Content Management Systems (CMS) in the provision of web sites. Coding of sites involves Extensible Hyper Text Markup Language (XHTML) and Cascading Style Sheets (CSS). CMS involves design, creation and management of web sites using specialist CMS tools. Contents include: XHTML and CSS for coding web sites; use of a CMS to design, set up, deploy and maintain web sites.

Credit Points: 12

Learning Outcomes: On successful completion of this unit, students will be able to: 1. Develop Web sites using XHTML and CSS; 2. Apply a CMS in the design, development and deployment of a web site; and 3. Apply Web design principles in the effective design of Web sites.

Class Contact: This unit will have ninety (90) contact hours per semester including face-to-face facilitated sessions and online activities over a 15-week semester.

Required Reading: Gosselin, D. (2011) 1st ed. Principles of HTML, XHTML, and DHTML Course Technology Leary , S. (2010) 1st ed. Beginning WordPress 3 Apress

Assessment: Test, Online Quiz (half hour), 10%. Test, Online Quiz (half hour), 10%. Assignment, Website Design, 20%. Assignment, Website Development, 60%.

VIT1102 Introduction to Programming

Locations: Footscray Nicholson, Footscray Park, This unit is available at Henan University..

Prerequisites: Nil.

Description: This unit introduces students to modern computer programming language, problem solving and algorithm development. Students will be exposed to multiple design strategies, including top-down design and recursive design with functions, object-based programming, and object-oriented design. Content includes: Data Types and Expressions, Control Statements, Strings and Text Files, Design with Functions, Design with Classes, Graphical User Interfaces, Simple Graphics and Image Processing.

Credit Points: 12

Learning Outcomes: On successful completion of this unit, students will be able to: 1. Demonstrate skills in using a programming language; 2. Apply suitable design strategies to develop a solution; 3. Develop algorithms using basic programming language; and 4. Apply basic object-oriented software principles in problem solving.

Class Contact: This unit will have ninety (90) contact hours per semester including face-to-face facilitated sessions and online activities over a 15-week semester.

Required Reading: Kenneth A. Lambert.(2012) 1st Fundamentals of Python: First Programs Cengage Learning

Assessment: Laboratory Work, Weekly Practical tasks, 30%. Test, Two (2) Written Tests (20% each), 40%. Test, Final Practical Test, 30%.

VIT1103 Communication and Information Management

Locations: Footscray Nicholson, Footscray Park, This unit is available at Henan University..

Prerequisites: Nil.

Description: This unit aims to develop a set of skills associated with oral, written, technical and online communication. Students locate and assembling reliable sources of information for collation and presentation. Information is stored and managed electronically for effective storage and communication. Content includes an overview of the Internet, characteristics and functions of browsers, resources on the Internet, using search engines effectively, and application of IT technology to information gathering, storage and reporting. The unit also addresses formal and academic written communication.

Credit Points: 12

Learning Outcomes: On successful completion of this unit, students will be able to: 1. Conduct basic research and locate relevant Web-based and other resources; 2. Assess and evaluate resources and make judgements and decisions on their reliability and validity; 3. Access, collate and synthesise information from a variety of sources; 4. Plan and apply a variety of approaches to design and present researched information to given problem; and 5. Collaborate with others using effective interpersonal skills to design and develop online material, with responsibility for own output.

Class Contact: This unit will have ninety (90) contact hours per semester including face-to-face facilitated sessions and online activities over a 15-week semester.

Required Reading: The Teacher will provide learning materials as required.

Assessment: Assignment, In Term Assignment: Apply information or communication

concepts, 20%. Test, Test, 30%. Assignment, Final: Apply information or communication concepts, 50%.

VIT1104 Computer Networks

Locations: Footscray Nicholson, Footscray Park, This unit is available at Henan University..

Prerequisites: Nil.

Description: This unit provides an introduction to data communication fundamentals, network transmission technologies and network protocols. It introduces students to basic design and communicational issues related to local area networks, wide area networks and the Internet. Content includes: History and fundamentals of data communications and networks; standards; communication media types; data communications principles and protocols; network architectures and protocols, standard interfaces and transmission techniques; data integrity and security; Local Area Networks (LAN); data link control; IP Addressing and Subnetworking; Routing protocols like RIP; Switching technologies and Virtual LANs; Design and implementation of enterprise networks using industry standard equipment like CISCO routers and switches.

Credit Points: 12

Learning Outcomes: On successful completion of this unit, students will be able to: 1. Demonstrate an understanding of modern business and personal applications of data communication systems; 2. Apply various technologies to solving data communication and networking problems; 3. Design IP networks with proper subnetworks; 4. Design switching networks; and 5. Implement moderately complex networks with industry standard technologies like CISCO routers and switches. (LiWC).

Class Contact: This unit will have ninety (90) contact hours per semester including face-to-face facilitated sessions and online activities over a 15-week semester.

Required Reading: Cisco Networking Academy (2013) 1st ed. Introduction to Networks Companion Guide Cisco Press

Assessment: Test, Test 1, 30%. Test, Test 2, 30%. Assignment, Final Assignment, 40%.

VIT1201 Introduction to Database Systems

Locations: Footscray Nicholson, Footscray Park, This unit is available at Henan University..

Prerequisites: Nil.

Description: This unit introduces fundamental concepts underpinning the analysis and design of information systems and explains the role and purpose of systems analysis. Students gain mastery of standard techniques to identify system requirements and design a simple database system. Content includes: systems concepts; role of the analyst; Systems Development Life Cycle (SDLC), process modelling, Entity-Relationship (ER) modelling; relational database design using ER and Extended ER modelling, relational algebra, SQL (Structured Query Language), normalisation; and database management systems (DBMS).

Credit Points: 12

Learning Outcomes: On successful completion of this unit, students will be able to: 1. Describe the benefits and functions of databases and their applications; 2. Design a database using key relational database model concepts; 3. Develop and apply ER and EER diagrams; 4. Implement a relational database with multiple tables using a relational DBMS; 5. Apply query languages and manage a database using SQL; and 6. Normalise relations in a relational database system.

Class Contact: This unit will have ninety (90) contact hours per semester including face-to-face facilitated sessions and online activities over a 15-week semester.

Required Reading: D'orazio, R & Happel; G (1996) Practical Data Modelling for Database Design John Wiley & Sons. Churcher, C. (2012) Beginning Database Design, From Novice to Professional Apress

Assessment: Case Study, Assignment, 30%. Test, Test, 20%. Test, Final Test, 50%.

VIT1202 Operating Systems

Locations: Footscray Nicholson, Footscray Park, This unit is available at Henan University..

Prerequisites: Nil.

Description: This unit introduces students to modern computer operating systems, their major components and roles. Students will be exposed to at least two popular operating systems including a mobile OS. Content includes: Operating System (OS) concepts, OS architectures; threads and processes; concurrency, daemons and services; memory management, devices and device drivers; file systems, security; basic scripting.

Credit Points: 12

Learning Outcomes: On successful completion of this unit, students will be able to: 1. Demonstrate an understanding of the basic OS architectures, functions and roles; 2. Cite the history and identify social impacts of different operating systems, including mobile OS; 3. Describe OS components for processes, devices, files and memory management; and 4. Research and report information on operating system types.

Class Contact: This unit will have ninety (90) contact hours per semester including face-to-face facilitated sessions and online activities over a 15-week semester.

Required Reading: McIver-McHoes A. & Flynn, I. (2008) 6th Ed. Understanding Operating Systems Cengage Learning

Assessment: Assignment, Install and configure operating system (including 1500 words report), 30%. Test, Written Test aligned to Industry Certification (90 min), 40%. Laboratory Work, Practical Lab Tasks aligned to industry certification, 30%.

VIT1203 Introduction to Project Management

Locations: Footscray Nicholson, Footscray Park, This unit is available at Henan University..

Prerequisites: Nil.

Description: This unit investigates aspects of professional practice and specific tasks that need to be undertaken in order to initiate and implement an IT project. Content includes many aspects of project management, definition of a project; characteristics of IT projects; project life cycle; project team; project management aspects; scope, time, cost, quality, human resource; communications, risk, procurement, and integration management; project planning and scheduling; Critical Path Method (CPM); project execution and monitoring; project closure; project management software.

Credit Points: 12

Learning Outcomes: On successful completion of this unit, students will be able to: 1. Define a project, and identify the special characteristics of IT projects; 2. Describe the key elements of a project plan, including cost and time schedules; 3. Undertake project planning and documentation, considering all project requirements, constraints and risks; 4. Manage project execution activities, monitor and control project scope changes, risks, issues and the delivery of project team work activities; and 5. Coordinate project closure, consider IT support plans and obtain final project sign-off.

Class Contact: This unit will have ninety (90) contact hours per semester including face-to-face facilitated sessions and online activities over a 15-week semester.

Required Reading: Schwalbe, K. (2013) 7th ed. Information Technology Project

Management, Revised Thomson Course Technology
Assessment: Case Study, Assignment (in two parts) approx. 2000 words in total, 60%. Test, Two (2) Tests (20% each), 40%. The LiWC component of 60% applies to the two (2) part Case Study, equating to approximately 2000 words in total.

VIT1204 Web Application and Server Management

Locations: Footscray Nicholson, Footscray Park, This unit is available at Henan University..
Prerequisites: Nil.
Description: This unit instructs students in rapid development of web-based, interactive applications using an Integrated Development Environment (IDE). It then continues with addressing the set up and management of web servers that host such applications. Content includes: application of an IDE in web application design and development; use of controls in web page development; server-side scripting using object-oriented programming; web server set up, deployment and management using relevant technologies/tools.
Credit Points: 12
Learning Outcomes: On successful completion of this unit, students will be able to: 1. Apply an IDE to design and develop web applications for real-world clients; 2. Use relevant markup/controls in developing web pages; 3. Apply object-oriented programming in the design and development of web applications; and 4. Apply concepts related to server management in managing a server in a real-world situation.
Class Contact: This unit will have ninety (90) contact hours per semester including face-to-face facilitated sessions and online activities over a 15-week semester.
Required Reading: David Powers (2014) 3rd PHP Solutions: Dynamic Web Design Made Easy Apress Mikael Olsson (2013) 1st PHP Quick Scripting Reference (Expert's Voice in PHP) Apress
Assessment: Test, Test, 30%. Case Study, Assignment 1, 30%. Case Study, Assignment 2, 40%.

WDB1001 Accounting

Locations: Footscray Nicholson.
Prerequisites: Nil.
Description: This unit provides a basis for further accounting studies, while meeting the needs of students from other areas of business studies. Students will critically assess the processes involved in planning and decision making within the modern business environment. Students will examine the roles of accounting and management planning for substantiating organisational decision making. To undertake this examination, students will synthesise principals of basic accounting concepts and key professional practices of: cash and accrual accounting; preparation of financial statements; forms of business ownership, and effect on financial statements. Following an introduction to budgeting, students will critically assess: the use of budgets for control and performance reports; analysis and interpretation; evaluation of performance; the operating cycle; and short term decision making and cost behaviour.
Credit Points: 12
Learning Outcomes: On successful completion of this unit, students should be able to: 1. Critically assess different types of decisions relevant to maximising business performance, 2. Devise the use of accounting information in the planning and control of business operations, 3. Construct General Purpose Financial Reports to inform users of business performance and position, 4. Verify and synthesise information required for short and long term decision making relevant to management accounting, and 5. Articulate and devise problem-solving techniques in making informed management decisions. 6. Work collaboratively in teams to analyse, evaluate and propose strategies in response to dynamic financial environments as they affect accounting decision-making for managers of contemporary businesses.
Class Contact: Onshore This unit will have 75 contact hours per semester that is broken down into 5 hours of face-to-face facilitated 15 sessions weekly. Offshore The VU course coordinator and the partner institute course coordinator will determine the most appropriate method of delivery at each offshore site in accord with the relevant quality assurance agreements.
Required Reading: A mixture of online texts, articles, videos and resources will be available for the unit. These resources are housed on the University's Learning Management System.
Assessment: Test, At risk Online Test Multiple Choice (0.5 Hours) (150 words equivalence), 5%. Assignment, 3 Online open-book Multiple Choice/Short Answer revision assignments (approximately 0.5 hours duration, with access for 1 hour each)* (450 words), 5%. Assignment, Plus one excel transaction analysis assignment (400 words), 10%. Assignment, Sharemarket-Listed Company Analysis – group-based (400 words), 20%. Presentation, Oral Presentation – group-based (100 words), 10%. Examination, Final Exam (1.75 Hours) **, 50%. The above assessments have a total equivalent word count of 3,000 words. NESB students will have an additional 15 minutes allocated for reading time-restricted assessment items. * Students may submit two responses to each open-book review assignment during the week in which the assignment is open. ** Only non-programmable calculators without text and graphic facilities may be used in examinations. .

WDB1002 Business Law Principles

Locations: Footscray Nicholson.
Prerequisites: Nil.
Description: This is a preparatory unit designed to build academic language, literacy and numeracy skills in students using vocational delivery and assessment methods related to business law. Students will identify and comply with business legal and administrative requirements suitable for a range of contemporary business environments. They will develop a capable and systematic understanding of how to apply common law and statute law relating to businesses by analysing problem scenarios, and demonstrate appropriate research and legal writing skills in English.
Credit Points: 12
Learning Outcomes: On successful completion of this unit, students should be able to: 1. Identify legal issues in common business law scenarios, analyse and discuss the stakeholder's legal rights and responsibilities. 2. Accurately articulate and explain the legal rights, duties and responsibilities of parties in a business context. 3. Research, apply and accurately reference the appropriate law from particular statutes and case law relevant to specified contexts. 4. Demonstrate a working knowledge of the law relating to contract issues by analysing problem scenarios and applying relevant legal principles to advise on likely possible legal outcomes. 5. Clearly articulate individual interpretation of business law issues and application of relevant knowledge to others.
Class Contact: Onshore This unit will have 5 hours of face-to-face facilitated sessions with 2 hours of activities including online activities per week. Offshore The VU course coordinator and the partner institute course coordinator will determine the most appropriate method of delivery at each offshore site in accord with the relevant quality assurance agreements.
Required Reading: A mixture of online texts, articles, video's and resources will be available for the unit. These resources are housed on the University's Learning Management System.
Assessment: Test, Mid-semester test 0.5 hr (500 words), 30%. Project, Case Analysis

Group Learning in the Workplace Project 500 Words, 20%. Examination, Final Examination 2 hours (2000 words), 50%. These assessments are equivalent to 3000 words. NESB students will have an additional 15 minutes reading time in the Examination. .

WDB1003 Business Mathematics and Statistics

Locations: Footscray Nicholson.

Prerequisites: Nil.

Description: This unit is a preparatory unit designed to build academic language, literacy and numeracy skills in students using vocational delivery and assessment methods. This unit covers the mathematical and statistical techniques necessary to describe and analyse data for the purpose of forecasting and managerial decision making in English. The unit will cover applications of mathematics and statistics. The mathematics component consists of business applications of percentages, depreciation methods and calculations and break-even analysis with business related problems. The statistics component consists of both descriptive and inferential statistics. It includes the collection, presentation and analysis of data, probability, forecasting, indices and hypothesis testing.

Credit Points: 12

Learning Outcomes: On completion of this unit, students should demonstrate knowledge and skills to: 1. Apply basic mathematical computation techniques to formulate solutions to business related mathematical problems including application of percentages and depreciation. 2. Conduct break even analysis using both graphical and algebraic approaches. 3. Work independently and collaboratively in teams to collect relevant data, analyse and evaluate data using descriptive and inferential statistical methods and solve probability problems. 4. Advise the appropriate statistical analysis technique to solve a given business problem, and justify selection of that technique. 5. Conduct and analyse business forecasting using regression model and time-series analysis. 6. Formulate and test a hypothesis and describe the outcomes.

Class Contact: Onshore This unit will have 5 hours of face-to-face facilitated sessions with a minimum of 2 hours of online activities per week. Students are required to spend at least 10 hours per week (5 hours of Lecture/Tutorials plus 5 hours of self-motivated study) reading, problem solving, completing the weekly set tasks, working in groups, conducting research and analysis, preparing report and presentation in order to successfully complete this unit. Offshore The VU course coordinator and the partner institute course coordinator will determine the most appropriate method of delivery at each offshore site in accord with the relevant quality assurance agreements.

Required Reading: A mixture of online texts, articles, video's and resources will be available for the unit. These resources are housed on the University's Learning Management System. A manual and workbook is also available for purchase which caters to the students with alternate learning styles.

Assessment: Test, Mathematics Online Quiz (150 words), 10%. Test, Weekly Statistics Quizzes (500 words), 15%. Case Study, Learning in the Work Place Simulated Group Assignment (850 words), 25%. Examination, Final Examination (1500 words), 50%. These assessments are equivalent to 3000 words. NESB students will have an additional 15 minutes reading time in the Examination.

WDB1004 Economics

Locations: Footscray Nicholson.

Prerequisites: Nil.

Description: This unit introduces students to the fundamental principles of economics in terms of the micro and macro environments within which businesses operate and the challenge of scarcity facing modern societies. Students will also gain an understanding of domestic and international factors that affect business decision making in a globalised world. Work-integrated learning is central to the unit. Students will undertake a Learning in the Workplace and Community (LiWC) project focusing on economic indicators and making comparisons between two countries. As such, they will develop critical thinking and problem solving skills as well as communication and team work skills. Vocational delivery and assessment methods inform the teaching and learning approaches in this unit. Students will build academic language, literacy and numeracy skills relevant as they engage in teaching and learning activities and assessments for the unit.

Credit Points: 12

Learning Outcomes: On completion of this unit, students should be able to: 1. Identify through analysis, the basic problem of scarcity facing modern societies; 2. Demonstrate the use of market dynamics models in economic reasoning to solve simple but important economic problems facing contemporary businesses; 3. Evaluate the forces that influence economic decision making for sustainable use of resources; 4. Evaluate key economic indicators relevant to business, household and government for sustainable development; 5. Apply elementary economic theories and techniques in real world business decision making and investigate the impact of government policy on proposing these decisions in a globalised world; 6. Effectively communicate the economic decision making process incorporating social, cultural and environmental objectives; 7. Clarify key economic concepts and principles by employing appropriate academic language and numeracy skills to demonstrate economic literacy relevant for paraprofessional work in the field.

Class Contact: Onshore This unit will have 5 hours of face-to-face facilitated sessions per week for each semester with a minimum of 2 hours of online activities per week Students are required to spend at least 10 hours per week (5 hours of Lecture/Tutorials plus 5 hours of self-motivated study) reading, problem solving, completing the weekly set tasks, working in groups, conducting research and analysis, preparing report and presentation in order to successfully complete this unit. Additional time may be required for completion of assignment and assessments. Offshore The VU course coordinator and the partner institute course coordinator will determine the most appropriate method of delivery at each offshore site in accord with the relevant quality assurance agreements.

Required Reading: A mixture of online texts, articles, videos, PowerPoints and resources will be available for the unit. There is also a Student Manual and Workbook to provide the basis for written literature. These resources are housed on the University's VU Collaborate system.

Assessment: Test, Test (0.5 hours), 20%. Assignment, Learning in the Work Place or Community (600 words), 30%. Examination, Final Examination (2 hours), 50%. The above assessments have a total equivalent word count of 3,000 words. NESB students will have an additional 15 minutes reading time in the Examination. .

WDB1005 Information Systems

Locations: Footscray Nicholson.

Prerequisites: Nil.

Description: This unit focuses on the role and application of information systems operating in a range of contemporary business settings, and reviews a variety of organisational information systems developed to provide them with a competitive advantage. Within a simulated business environment, students will solve a range of problems, making and justifying strategic decisions by applying and interpreting complex and diverse information systems methods and procedures where considerable discretion and discipline-specific judgements are required. Decision-making will be based on a technical and theoretical knowledge of information systems concepts designed to manage the identification, acquisition, development,

analysis and use of appropriate information systems, and the hardware and software technology integral to effective business information systems. Through a focus on business information systems and using vocational delivery and assessment methods, students will build and refine relevant academic language and discipline-specific literacy skills.

Credit Points: 12

Learning Outcomes: On completion of this unit students should demonstrate knowledge and skills to: 1. Analyse fundamental concepts to extrapolate the issues and benefits of information systems. 2. Explain the nature of data, the characteristics of good quality information and the importance of knowledge in identifying, anticipating and solving problems and substantiating professional decision making. 3. Compare the potential contribution of information systems to the competitive advantage of different organisations. 4. Apply structured problem-solving skills to determine the role, purpose and contributions of an effective information system development life cycle as it supports core dynamic business processes. Apply skills to manage data and information using personal productivity applications. 5. Employ effective interpersonal skills to work collaboratively to research and effectively communicate an evaluative review of information systems through written and oral business presentations.

Class Contact: Onshore This unit will have 5 hours of face-to-face facilitated sessions per week each semester. Offshore The VU course coordinator and the partner institute course coordinator will determine the most appropriate method of delivery at each offshore site in accord with the relevant quality assurance agreements.

Required Reading: A mixture of online texts, articles, video's and resources will be available for the unit. These resources are housed on the University's Learning Management System.

Assessment: Assignment, Group Resource Proposal (Learning in the Work Place/Community) - 1000 words, 40%. Other, Online Portfolio Review Questions – 500 words, 10%. Examination, Final Examination – 1.5 hours or 1500 words, 50%. The above assessments have a total equivalent word count of 3,000 words. NESB students will have an additional 15 minutes reading time in the Final Examination.

WDB1006 Marketing

Locations: Footscray Nicholson.

Prerequisites: Nil.

Description: Marketing has a dynamic focus in all business enterprises where its role is to ultimately satisfy the needs and values of a customer. Considered application of marketing principles underpin the development of successful marketing strategies; strategies that inform product, pricing, promotion and placement of goods and services into a market. The Marketing module will provide practical opportunities for students to understand key business principles and strategies that all organizations use to satisfy their customer needs and to deliver value. Students will apply consumer behaviour theories and marketing research and metrics to analyze businesses, and to identify consumer and business markets in order to develop appropriate marketing solutions. In times of constant change and globalization the importance of marketing in a social and sustainable manner will be reinforced so that marketing students can meet the challenges confronting them in their future career and employment outcomes.

Credit Points: 12

Learning Outcomes: On successful completion of this unit, students should be able to: 1. Analyse fundamental concepts, issues and benefits of marketing-related information systems, 2. Analyse how the key elements of the marketing mix contribute to an organisation's marketing strategy, 3. Compare alternative theories of consumer behaviour and contrast how they influence marketing activities, 4. Determine the practical implications of core marketing theory including marketing empirical generalisations, the Double Jeopardy and Duplication of Purchase laws, 5. Investigate marketing problems in business situations using marketing research and metrics, and effectively report, using appropriate verbal, written and visual modes of delivery, 6. Formulate basic marketing strategies that can be implemented to address marketing problems, 7. Work collaboratively in teams to analyse, plan, design and evaluate approaches to unpredictable problems.

Class Contact: Onshore This unit will have 5 hours of face-to-face facilitated sessions per week each semester. Offshore The VU course coordinator and the partner institute course coordinator will determine the most appropriate method of delivery at each offshore site in accord with the relevant quality assurance agreements.

Required Reading: A mixture of a manual, online texts, articles, video's, PowerPoints and resources will be available for the unit. These resources are housed on the University's VU- Collaborate System.

Assessment: Assignment, SWOT Analysis (500-600 word equivalent), 20%. Project, Group Project (500-700 word equivalent), 20%. Assignment, Promotional Plan (500-700 word equivalent), 20%. Examination, Final Examination (2 hours), 40%. The above assessments have a total equivalent word count of 3,500 words. NESB students will have an additional 15 minutes reading time in the Examination.

WDB1007 Management

Locations: Footscray Nicholson.

Prerequisites: Nil.

Description: This unit provides students with an understanding of organisational behaviour and management theory and its application in Australia and other countries and consider communication processes, and quality of working life. Students critically assess the underlying values of these theories to determine the utility and application of management practices informed by these theories in the Australian and international context. Students will also analyse critically the values of Australian managers and managers in other cultural contexts concerning behaviour in organisations, and evaluate the impact of these on management practise. - This unit of study includes the following topics: overview of the development of organisation/management theory; analysis of scientific management, human relations theory; individual behaviour/perception, personality, learning, motivation; group behaviour: group dynamics, conflict resolution and leadership. Students will extrapolate the application of these theories, concepts and principles through structured case studies. Students will also investigate issues of gender, ethnicity and age.

Credit Points: 12

Learning Outcomes: On successful completion of this unit, students should be able to: 1. Critically analyse management practices in the Australasian and international contexts, 2. Evaluate organisation behaviour and management theory and critically analyse the underlying values of these theories, 3. Investigate the impact of management theories on practical management decision making in the Australasian and international contexts, 4. Develop skills and knowledge with regard to individual and group behaviour in the context of organisations and their environment and applying these to achieve organisational goals, 5. Apply ethical concepts in contemporary business settings and critique how they relate to the individual in a work and societal context, and 6. Communicate a contextualised knowledge and understanding of management and organisation behaviour theory and practice in written and oral form.

Class Contact: Onshore This unit will have 5hours of face-to-face facilitated sessions with a minimum of 2 hours of online activities per week. Students are required to

spend at least 10 hours per week (5 hours of Lecture/Tutorials plus 5 hours of self-motivated study) reading, problem solving, completing the weekly set tasks, working in groups, conducting research and analysis, preparing report and presentation in order to successfully complete this unit. Offshore The VU course coordinator and the partner institute course coordinator will determine the most appropriate method of delivery at each offshore site in accord with the relevant quality assurance agreements.

Required Reading: A mixture of online texts, articles, video's and resources will be available for the unit. These resources are housed on the University's Learning Management System.

Assessment: Other, Workbook (500 words), 10%. Assignment, Group Activity (Learning in the Workplace) (500 words), 20%. Assignment, Research Essay (500 words), 20%. Examination, Final Examination (1.5 hours), 50%. The above assessments have a total equivalent word count of approximately 3,000 words. NESB students will have an additional 15 minutes reading time in the Examination.

WDB1009 Professional Communications

Locations: Footscray Nicholson.

Prerequisites: Nil.

Description: Students will participate in both individual and team activities within a professional business framework developing strategies to solve business problems. This unit makes explicit links with other Diploma units within a problem-solving framework. It supports students in their transition to University, engaging them in student centred learning within group experiential activities and providing a challenge through an integrated, open-ended activity. Students will experience the challenges and professional flexibility required to operate in a real world business context. Through scaffolded engagement using vocational delivery and assessment methods, students will build confidence and competence in developing appropriate academic language, and relevant literacy and numeracy skills. Students will develop the critical thinking, problem solving and collaborative working skills necessary for professional and academic learning. They will experience group and teamwork, interactive class-based activities, team-based projects and a case study approach to business issues. Learning activities will be scaffolded to include team dynamics and conflict management, critical thinking, information analysis and academic skills formation applying written and presentation business communications. Leaning activities will develop reflective writing on team formation and management of team conflict, peer review of teams, team based reporting, various presentation styles and formats, online group collaboration review and academic writing and referencing.

Credit Points: 12

Learning Outcomes: On successful completion of this unit students will be able to: 1. Identify and appreciate the social, cultural, political, economic and legal dimensions on effective business practice; 2. Integrate knowledge, skills and understanding of fundamental aspects of the Diploma specialisation units within a professional business framework. 3. Define, contextualise and apply information and problem definition with a problem solving framework to develop strategies to solve business problems through an open-ended experiential learning task; 4. Communicate effectively using appropriate verbal, written and visual modes of delivery; 5. Demonstrate the cognitive and dispositional dimensions of critical thinking; 6. Reflect insightfully on learning to demonstrate personal awareness, self motivation and change readiness; 7. Identify, appreciate and develop skills, interests and motivations in individual and multidisciplinary team settings; 8. Apply team-work skills to work collaboratively on open-ended tasks and produce timely outcomes.

Class Contact: Onshore This unit will have 75 contact hours per semester that is broken down into one 3 hour and one 2 hour class of face-to-face facilitated sessions including online activities each week over a 15 week semester. Offshore The VU course coordinator and the partner institute course coordinator will determine the most appropriate method of delivery at each offshore site in accord with the relevant quality assurance agreements.

Required Reading: A mixture of online texts, articles, video's and resources will be available for the unit. These resources are housed on the University's Learning Management System.

Assessment: Other, Online Portfolio Review Questions (450 words), 15%. Journal, Task Reflective Journal Portfolio (600 words), 20%. Report, Report / Business Plan (Learning in the Workplace/Community)-Group (750 words per team), 25%. Assignment, Business Plan Presentation (Learning in the Workplace/Community)-Group (300 words equivalent per team member), 10%. Examination, Individual Examination (1 hour), 30%. The above assessments have a total equivalent word count of 3,000 words. NESB students will have an additional 15 minutes reading time in the Examination.