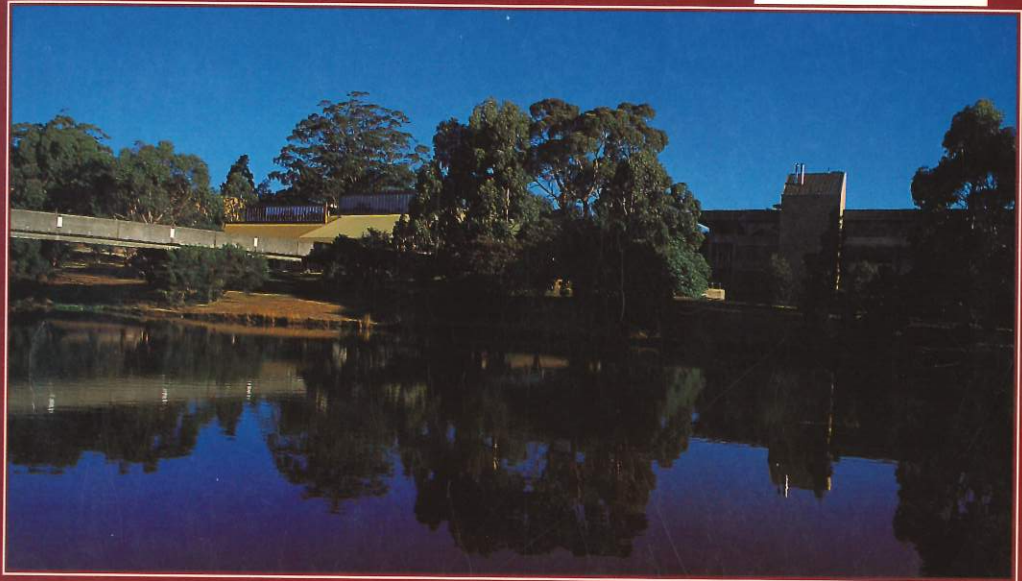


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# BALLARAT UNIVERSITY COLLEGE

Affiliated with  
**The University of Melbourne**

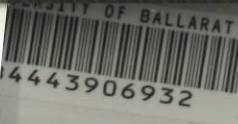
BALLARAT  
UNIVERSITY  
COLLEGE



H A N D B O O K 1 9 9 2

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puterised mapping, cryptography. 20 hours  
 20 hours  
 20 hours  
 XL. 20 hours  
 20 hours  
 relations, generating functions, 20 hours  
 error correcting codes. 20 hours  
 tz and the variational approach. 20 hours  
 programming and use of packages. 20 hours  
 ms, applications. 40 hours  
 20 hours  
 50 hours  
 base management systems.  
 Measures of location, dispersion  
 theorem of arithmetic. Perfect,  
 linear equations. Existence and  
 circular, exponential, logarithmic. 20 hours  
 inequations.  
 ling ratio of lengths and areas  
 ellations.  
 ve and associated probabilities.  
 are test. Confidence intervals.  
 uations, e.g. exponential models  
 ls of trajectories. Applications  
 t rule, chain rule. Application  
 Simple integration. Application  
 s.  
 s; isomorphism; cyclic and Klein  
 ntour maps. Graphical solution  
 projections.  
**OF EQUATIONS**  
 Iterative solution of equations.



UNIT OUTLINES

- 247 INTRODUCTION TO COMPUTERS  
A first course in interactive computing. Elements of BASIC programming.
- 248 COMPLEX NUMBERS  
The four arithmetic processes. Conjugates. Modulus and Argument. Argand Plane. Polar form. Demoiivre's Theorem. Multiple angles. The roots of a complex number.
- 340 SAMPLING  
Questionnaire design. Sources of bias. Sampling and non-sampling error. Sampling for proportions. Quota sampling, systematic sampling, stratified sampling.
- 341 HISTORY OF MATHEMATICS  
A selection of topics from the history of Mathematics.
- 342 EXPERIMENTAL DESIGN  
Randomisation, paired experiments, randomised blocks, two way blocking, sources of non-sampling error, double blind trials. 2<sup>n</sup> factorial designs and the interpretation of interaction.
- 343 ADVANCED COMPUTING  
Use of an advanced computer package such as SPSS or BMD.
- 344 HARMONIC MODELS  
Content: Time series. Investigations of acoustic vibrations using electronic equipment. The mathematics of musical sounds: Superposition of sinusoids. The concept of Fourier analysis of recurrent phenomena. Graphical investigations—formal evaluation of coefficients by integration is excluded. Time-variant effects: envelopes, beats. The concept of a transfer function: application to non-linear distortion. Logarithmic scales for frequency and intensity. Musical scales and chords; the mathematics of harmony and dissonance.
- 345 MATHEMATICAL MODELS  
Models in elementary statistics e.g. Correlation and Regression. Linear, parabolic, logarithmic, hyperbolic etc. up to 4th degree equations as applied to fitting data. Multiple regression.

**NB211 SOCIAL PSYCHOLOGY**

*Four hours per week—one semester*

Prerequisite: NB111.  
 Objectives: To develop awareness of the social psychological concepts, methods and research findings which impinge on the nursing process.  
 Content: Topics include verbal and nonverbal communication, perception of other people, attitudes and attitude change, group behaviour, social influence, satisfaction and motivation at work and the effect of the physical environment on behaviour. All topics are explored first from a general psychological perspective and then from a health and nursing perspective using lectures, tutorials and experiments.

**NB212 PSYCHOSOCIAL PROCESSES II**

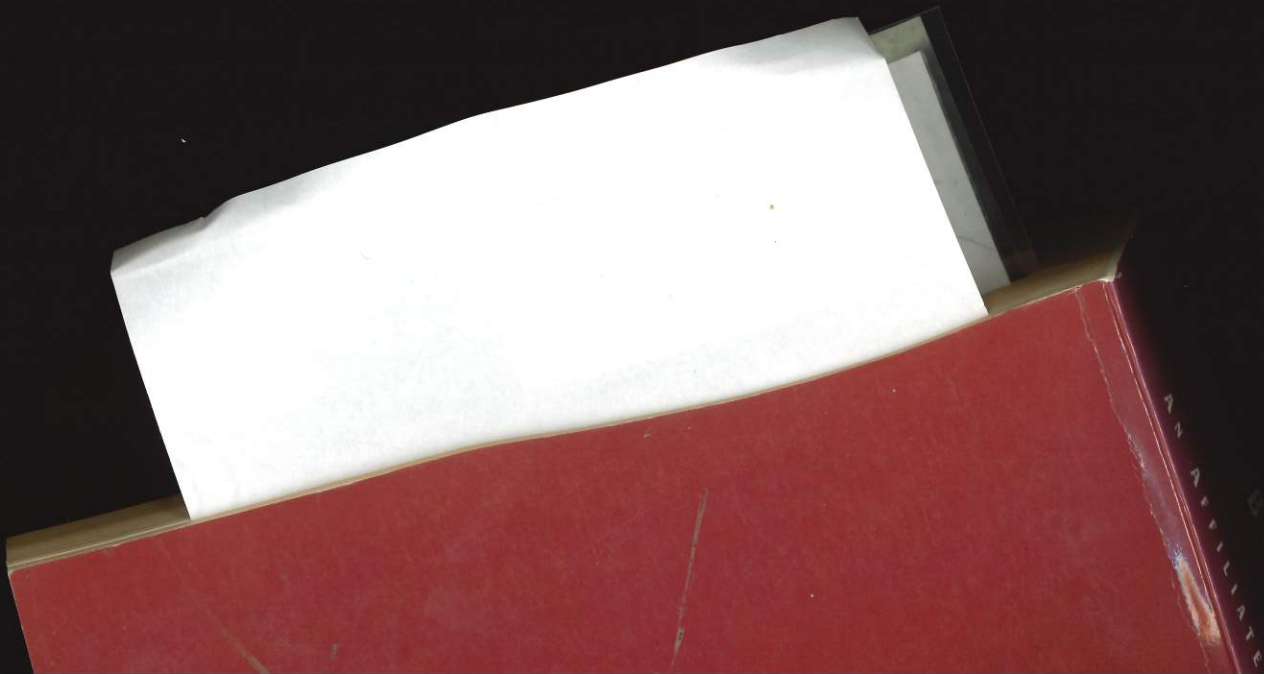
*Total fifty-two hours—one semester*

Prerequisites: NB101, NB112.  
 Objectives: To enable students to appreciate the interaction between psychosocial factors and health and the social constraints in health care, and to further develop their counselling skills.  
 Content: Psychosocial influences on illness and illness management and the role of the medical and nursing professions; the impact of illness and hospitalization; approaches to counselling and interpersonal skill development.

**NB311 PSYCHOSOCIAL PROCESSES III**

*Eight hours per week five weeks*

Prerequisite: NB212.  
 Objectives: To enable students of nursing to apply theoretical concepts and learned skills in counselling and human management to their clinical experience.



Death, dying and bereavement; Crisis  
; and Stress and stress management.

ponent to the clinical setting; develop  
the Nursing Process, to practice various  
science strands.  
"People in Illness" and will concentrate  
ation/circulation, nutrition/elimination

ponent to the clinical setting; develop  
the Nursing Process, to practice various  
science strands.  
"People in Illness" and will concentrate  
obility, perception, regulation the genito-

**"K" STREAM—**

"People in Crisis", with the major emphasis  
are of a physical nature.  
and the opportunity to practice basic ward

**"Z" STREAM—**

"People in Crisis", with the major emphasis  
are of a psychological nature. A five week  
students to the basics of psychiatric nursing.  
will also be included.

**STRAND**

community and clinical education settings.  
ounters with clients/patients, their families  
an actual clinical situation.

- carry out specified learning activities, under qualified supervision, to his/her level of preparation;
- apply the problem-solving approach of the nursing process, document clearly and accurately the specific care given and evaluate the outcomes of these nursing interventions, modifying on-going care as necessary;
- show evidence of the correlation of knowledge and skills from areas of Behavioural and Bioscience strands, in the provision of safe, humane, patient/client health care.
- demonstrate, after adequate supervised practice, mastery of specified clinical skills, within a given time framework;
- experience and come to terms with the stresses within the actual working environments, using principles and other knowledge gained in Behavioural Studies areas.

Clinical Education Strand Year 2

Year 2, Semester 1	Theme: "PEOPLE IN ILLNESS"—I	Total 196 hrs
Clinical Education III		4
NC201: 1 week x 4 hrs (Orientation)		192
12 weeks x 16 hrs/wk		<hr/> 196 hrs

Year 2 Semester 2	Theme: "PEOPLE IN ILLNESS"—II	Total 208 hrs
Clinical Education IV:		208 hrs
NC202: 13 weeks x 16 hrs/wk		<hr/> 208 hrs

Clinical Education Strand: Year 3

Year 3, Semester 1—"X" Strand	Theme: "CRITICAL CARE"	Total 328 hrs
Clinical Education V:		16
NC301: 1 week x 16 hr/wk		312
13 weeks x 24 hr/wk		<hr/> 328 hrs

Year 3, Semester 2—"Z" Strand	Theme: "MENTAL HEALTH"	Total 352 hrs
Clinical Education VI:		200 hrs
NC302: 5 weeks x 40 hrs/wk		80 hrs
2 weeks x 40 hrs/wk		72 hrs
3 weeks x 24 hrs/wk		<hr/> 352 hrs

**NC401 CLINICAL PRACTICUUM**

120 hours over three semesters. Distribution of these hours throughout each semester will vary according to the nature of the experience and the clinical agencies selected.

The purpose of this unit is to provide students with an opportunity to explore a selected area of community health practice. It enables them to gain knowledge and expertise in the chosen field of practice, thereby meeting individual learning needs and interests while satisfying the requirements of the unit.

This will be achieved by students developing, implementing and evaluating a learning contract designed to enable them to meet their identified learning needs while addressing the objectives of the unit.

Students will be assisted by lecturers and clinical advisors, in respective agencies, to whom they will be assigned. Students will be required to determine their focus of clinical study and propose an agency where the desired clinical experience can be obtained.

**NC411 ADVANCED PSYCHIATRIC NURSING (I) (FIELDWORK)**

60 hours in total

Unit Description: This unit will permit students to select an area of psychiatric nursing that will enhance their skills and knowledge. The student would be expected to utilize knowledge gained from the unit on Psychiatric Nursing Research to select an area of psychiatric nursing they wish to study in some depth. Students will be expected to negotiate with lecturers and health care agencies a placement related to a selected topic and produce a strategy for accomplishing the personalized objectives of the unit. The unit will be conducted

ic nursing diagnostic criteria. Using assessment skills will be discussed as health continuum. Primary, secondary attention on assessment skills.

emerging knowledge of the biological temporary knowledge of the biological behaviour. The student will be provided immune systems, endocrine systems, span of an individual and integrate prevention of mental illness.

## INTERVENTIONS (I) INTERVENTIONS (II)

with the opportunity of exploring a previously discussed that may be utilized individual or group level.

function to the study of commonly of children and adults pathophysiology, to the formulation environmental pathology of the respiratory immune system.

f adults pathophysiology of the specific disease specific nursing care plans. environmental pathology, of the em, genito-urinary system of the male al problems of surgical intervention.

nature of common medications.

## UNIT OUTLINES

271

2. Understand the protocols for the safe administration of drugs.
3. Understand the related biological and psychological effects of certain life-styles on medication therapy

### Content:

1. Introduction to pharmacology: broad classification, legal requirements agency protocols, role of pharmacist and nurse, rights of the individual and compliance.
2. Outline common antibiotics, paediatric and neonatal drugs and immunization regimes.
3. Outline of pharmacological intervention in treating problems of oxygenation, circulation, nutrition, enteral and parenteral feeding and old age.

## NS232 PHARMACOLOGY II

Year 2 Semester 2

2 hours per week x 7 weeks + 1 hour x 1 week—one semester

Prerequisites: NS231, NS201.

Objectives: As NS231.

Content: Outline of pharmacological intervention in treating problems of: mobility, perception, the autonomic nervous system and surgical procedures, toxicity/poisoning, neurology—eg. epilepsy, Parkinsonism and migraine, hormonal balance and endocrine functioning, reproduction and sexually transmitted diseases, urinary formation, elimination and neoplasia.

## NS271 MEDICAL MICROBIOLOGY I

Year 2 Semester 1

3 hours per week x 3 weeks + 1 hour per week x 11 weeks

Prerequisites: NS102, NS121, NS122.

Objectives: To help the student of nursing develop a deeper knowledge and understanding of:

1. potential and actual pathogens
2. the interaction between humankind and microbes
3. human defence mechanisms both specific and non-specific that form the adaptive response of the host
4. measures to control microbial growth.

## NS272 MEDICAL MICROBIOLOGY II

Year 2 Semester 2

Prerequisites: NS271, NS201.

Content: Outline of common disease states and specific communicable diseases caused by pathogenic micro-organisms prevalent in the community and Health Care Agency settings. Areas addressed are diagnostic procedures, antimicrobial therapy, measures taken to reduce mortality and morbidity and the overall influence of infectious diseases on modern day society.

## NS301 NEURO AND PSYCHOPATHOLOGY

2 hours per week x 15 weeks—one semester

Prerequisites: NS202.

Corequisites: NN302, NN303, NB311.

Objective: The student of nursing will understand both organic and non-organic disease processes which affect the individual's ability to interpret and adapt to their internal environment resulting in interruptions to activities of daily living.

### Content:

1. Organic mental disorders—causes, clinical features and treatment—includes substance use disorders, ageing and psychopathology.
2. Functional mental disorders—causes, clinical features and treatment.