



The University of Southern Queensland

Course specification

Description: Communicable Diseases and Infection Control 1

Subject	Cat-nbr	Class	Term	Mode	Units	Campus
BIO	3092	40305	1, 2005	EXT	1.00	Toowoomba

Academic group:	FOSCI
Academic org:	FOS002
Student contribution band:	2
ASCED code:	061399

STAFFING

Examiner: Michael Kotiw

REQUISITES

Pre-requisite: NSC2921 for BNUR students Pre-requisite: BIO2205 for BSCI students taking the course as an elective

RATIONALE

This course provides an understanding of microbiology from a clinical perspective. Students will acquire a sound foundation in the nature of the infectious process, the scope of infections they are likely to encounter in clinical practice and the basic fundamentals of infection control practice.

SYNOPSIS

This course provides an introduction to microbiology as relevant to infection. The nature of infections in clinical practice is investigated. The course then deals with the basic concepts of infection control practice including: sterilisation, infection, epidemiology, standard precautions and additional precautions, prophylaxis, antimicrobials and chemotherapy, immunisation, an introduction to quality control, management and surveillance practices.

OBJECTIVES

On successful completion of this course students will be able to:

1. outline the nature of microbial pathogenesis in terms of the infectious process;
2. describe and demonstrate an understanding of the nature of infections likely to be encountered in clinical practice including infections associated with a. skin and soft tissues b. the respiratory tract c. gastrointestinal tract d. urinogenital system e. central nervous system f. bone and joints g. pyrexia of unknown origin h. the compromised host i. introduction to nosocomial infections;
3. apply and demonstrate an understanding of basic infection control management procedures and protocols, including an understanding of the concepts and protocols relating to: a. basic principles and practice of infection control including: isolation

techniques, sterilization, antisepsis and disinfection, isolation precautions, management of infectious waste b. colonization and nosocomial infections c. prevention of nosocomial pneumonia d. prevention of urinary tract infections e. investigation of an outbreak of nosocomial infections f. management practices in infection control.

TOPICS

	Description	Weighting (%)
1.	Microbial Pathogenesis: review of the structure, morphology and physiology of bacteria, fungi, parasites and viruses; the significance of endogenous flora; characteristics of the infectious process; microbial virulence factors; the infection process.	30.00
2.	Clinical Infections: skin and soft tissue; respiratory tract; gastrointestinal tract; urinogenital system; central nervous system; bone and joints; Pyrexia of unknown origin; the compromised host; introduction to nosocomial infections.	30.00
3.	Infection control fundamentals: sterilisation theory; sterilisation methods; antisepsis and antiseptics; disinfection and disinfectants; disposal of infectious waste; epidemiology fundamentals; isolation precautions including: principles and practice of standard and additional precautions; control of nosocomial pneumonia; control of nosocomial UTIs; investigation methods during an outbreak of a nosocomial infection; the infection control practitioner fundamentals.	40.00

TEXT and MATERIALS required to be PURCHASED or ACCESSED

ALL textbooks and materials are available for purchase from USQ BOOKSHOP (unless otherwise stated). Orders may be placed via secure internet, free fax 1800642453, phone 07 46312742 (within Australia), or mail. Overseas students should fax +61 7 46311743, or phone +61 7 46312742. For costs, further details, and internet ordering, use the 'Textbook Search' facility at <http://bookshop.usq.edu.au> click 'Semester', then enter your 'Course Code' (no spaces).

2000, *Therapeutic Guidelines*, 11th edn, Therapeutic Guidelines Ltd, Melbourne.
(antibiotics ISSN 1329-5039)

Chin, J MD 2000, *Control of Communicable Diseases Manual*, 17th edn, American Public Health Association, New York.
(ISBN 0 87553 1)

NHRMC & ANCA 1996, *Infection Control in the Healthcare Setting*, Australian Government Publishing Service, Canberra.
(Available on-line only.)

REFERENCE MATERIALS

Reference materials are materials that, if accessed by students, may improve their knowledge and understanding of the material in the course and enrich their learning experience.

Balows, A 1991, *Manual of Clinical Microbiology*, 5th edn, American Society for Microbiology, Washington, DC.

Benjamini, E, Sunshine, G & Coico, R 2000, *Immunology: A Short Course*, 4th edn, Wiley-Liss, New York.

(ISBN 0-471-59791-0)

Gardner, JF & Peel, MM 1991, *Introduction to Sterilisation, Disinfection and Infection Control*, 2nd edn, Churchill Livingstone, London.

Inglis, TJJ 1996, *Microbiology and Infection*, Churchill Livingstone, New York.

(ISBN 0443 050341)

Lee, G & Bishop, P 1997, *Microbiology and Infection Control for Health Professionals*, Prentice Hall, Sydney.

Mandal, BK, Wilkins, EG, Dumbar, EM & Mayon White, RT 1996, *Lecture Notes on Infectious Diseases*, 5th edn, Blackwell Science, Oxford.

(ISBN 0 632 03351 7)

Mandell, GL et al 2000, *Principles and Practice of Infectious Diseases*, 5th edn, Churchill Livingstone, New York.

National Health and Medical Research Council 2000, *The Australian Immunisation Handbook*, 7th edn, Australian Government Publishing Service, Canberra.

(ISBN 0644 47578 1)

Pechenik, JA 2004, *A Short Guide to Writing About Biology*, 5th edn, Pearson Longman, New York.

Slater, DI et al 1993, *An Atlas of Medical Microbiology*, 2nd edn, Victorian Pathology Services, Blackburn.

STUDENT WORKLOAD REQUIREMENTS

ACTIVITY	HOURS
Directed Study	70.00
Examinations	1.50
Private Study	100.00

ASSESSMENT DETAILS

Description	Marks out of	Wtg(%)	Due date
ASSIGNMENT 1	10.00	10.00	01 Apr 2005
ASSIGNMENT 2	10.00	10.00	06 May 2005
ASSIGNMENT 3	20.00	20.00	24 Jun 2005
1.5 HR CLOSED EXAMINATION	60.00	60.00	END S1 (see note 1)

NOTES

1. Examination dates will be available during the Semester. Please refer to the examination timetable when published.

IMPORTANT ASSESSMENT INFORMATION

- 1 Attendance requirements:
It is the students' responsibility to attend and participate appropriately in all activities (such as lectures, tutorials, laboratories and practical work) scheduled for them, and to study all material provided to them or required to be accessed by them to maximise their chance of meeting the objectives of the course and to be informed of course-related activities and administration.
- 2 Requirements for students to complete each assessment item satisfactorily:
To complete each of the assignments satisfactorily, students must obtain at least 50% of the marks available for each assignment. To complete the examination satisfactorily, students must obtain at least 50% of the marks available for the examination.
- 3 Penalties for late submission of required work:
If students submit assignments after the due date without prior approval then a penalty of 20% of the total marks gained by the student for the assignment will apply for each working day late.
- 4 Requirements for student to be awarded a passing grade in the course:
To be assured of receiving a passing grade a student must attempt all of the summative assessment items, achieve at least 50% in the examination, achieve an aggregated mark of at least 50% in the total marks allocated for the assignments, and at least 50% of the available weighted marks for the summative assessment items.
- 5 Method used to combine assessment results to attain final grade:
The final grades for students will be assigned on the basis of the weighted aggregate of the marks (or grades) obtained for each of the summative assessment items in the course.
- 6 Examination information:
In a Closed Examination, candidates are allowed to bring only writing and drawing instruments into the examination.
- 7 Examination period when Deferred/Supplementary examinations will be held:
Any Deferred or Supplementary examinations for this course will be held week 2 of Semester 2 of the current academic year.
- 8 University Regulations:
Students should read USQ Regulations 5.1 Definitions, 5.6. Assessment, and 5.10 Academic Misconduct for further information and to avoid actions which might contravene University Regulations. These regulations can be found at the URL

<http://www.usq.edu.au/corporateservices/calendar/part5.htm> or in the current USQ Handbook.

ASSESSMENT NOTES

- 9 The due date for an assignment is the date by which a student must despatch the assignment to the USQ. The onus is on the student to provide proof of the despatch date, if requested by the Examiner. Students must retain a copy of each item submitted for assessment. This must be produced within two days if requested by the Examiner.
- 10 Students who obtain an overall passing mark, but who do not perform satisfactorily in an examination, may, at the discretion of the examiner, be granted a supplementary examination. Students will be granted a deferred examination only if they perform satisfactorily in all other assessment items.