



The University of Southern Queensland

Course specification

This version produced 20 Dec 2007.

The current and official versions of the course specifications are available on the web at
<<http://www.usq.edu.au/coursespecification/current>>.

Please consult the web for updates that may occur during the year.

Description: Infectious Diseases 2

Subject	Cat-nbr	Class	Term	Mode	Units	Campus
BIO	8103	63289	1, 2007	ONC	1.00	Toowoomba

Academic group:	FOSCI
Academic org:	FOS002
Student contribution band:	2
ASCED code:	010913

STAFFING

Examiner: Michael Kotiw

REQUISITES

Co-requisite: BIO4103

RATIONALE

Through undertaking computer laboratory exercises, and literature surveys, the aim of this course is to provide an in depth understanding of current molecular and conventional investigative tools involved in the analysis of complex infectious diseases.

SYNOPSIS

Students will be involved in the development and application of conventional and molecular technologies for organizing, analysing and interpreting complex microbiological data. The course will provide advanced practical experience in DNA and protein analysis, including the searching of DNA, protein and nucleic acid databases using homology-based and pattern-based search algorithms, as well as sequence comparisons and alignments. Candidates will undertake laboratory exercises in a group environment, but will be required to prepare independent reports for assessment. Students will develop microbiological, investigative and analytical skills and be able to provide advanced technical reports and recommendations on the management of infectious disease syndromes. Specific Topics will be published in the course handbook.

OBJECTIVES

On completion of this course students will be able to:

1. use a wide range of conventional and molecular laboratory techniques to formulate and solve complex infectious disease problems (Research Project Report);
2. undertake, synthesize and deliver coherent literature searches relevant to infectious diseases (Literature review);
3. undertake and independently solve complex microbiological problems (Research Project Report);

4. demonstrate effective skills for searching literature databases and electronic resources (Literature review);
5. demonstrate skills and knowledge required to perform laboratory experiments safely with appropriate equipment, including molecular and conventional microbiological apparatus, computer software and hardware for data acquisition and analysis (Research Project Report);
6. demonstrate skills required for the preparation and submission of a detailed laboratory report (Research Project Report);
7. demonstrate the skills required for the preparation and submission of a detailed literature review (Literature review).

TOPICS

Description	Weighting (%)
1. This is a laboratory-based course which provides training in advanced technical and analytical techniques relevant to the discipline. Candidates will undertake laboratory exercises in a group environment, but will be required to prepare independent reports for assessment. Project exercises to be undertaken will be determined by the examiner. Details of specific topics will be provided in the BIO8103 Course Handbook. On completion of all of the exercises students will have prepared a report/s for examination. Students will be required to participate in and make presentations during tutorial sessions.	100.00

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).

Kotiw M 2007, *BIO8103 Infectious Diseases 2, Course Handbook*, USQ Publication, Toowoomba.
 Salyers AA & Whitt DD 2002, *Bacterial pathogenesis: a molecular approach*, 2nd edn, ASM Press, Washington.

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.

Alberts B et al 2003, *The Molecular Biology of the Cell*, 4th edn, Garland, New York.

Coico R, Sunshine G & Benjamini, E 2003, *Immunology: A Short Course*, 5th edn, Wiley, New York.

Mandell GL et al 2005, *Principles and Practice of Infectious Diseases*, 6th edn, Churchill Livingstone, New York, Vol 1&2.

STUDENT WORKLOAD REQUIREMENTS

ACTIVITY	HOURS
Laboratory	30.00
Private Study	129.00
Tutorials	13.00

ASSESSMENT DETAILS

Description	Marks out of	Wtg(%)	Due date
LITERATURE REVIEW	40.00	40.00	06 Mar 2007 (see note 1)
RESEARCH PROJECT REPORT	60.00	60.00	06 Mar 2007 (see note 2)

NOTES

1. Examiner to advise the due dates for the Literature Review and Research Project Report. Details of the requirements for the Literature Review and Research Project Report will be provided by the examiner in the Infectious Diseases 2 Course Handbook 2007.
2. Examiner to advise the due dates for the Literature Review and Research Project Report. Details of the requirements for the Literature Review and Research Project Report will be provided by the examiner in the Infectious Diseases 2 Course Handbook 2007.

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. To maximize their chances of satisfying the objectives of the practical component of the course, students should attend and actively participate in the laboratory sessions in the course. The use of safe procedures in the laboratory will be strictly enforced and continuously monitored to ensure competent performance by students. Students who fail to attend sufficient number of practical sessions (less than 80% of total sessions) may be excluded from completion of the practical course on grounds of safety.
- 2 Requirements for students to complete each assessment item satisfactorily:
To satisfactorily complete an individual assessment item a student must achieve at least 50% of the marks or a grade of at least C-. (Depending upon the requirements in Statement 4 below, students may not have to satisfactorily complete each assessment item to receive a passing grade in this course).
- 3 Penalties for late submission of required work:
If students submit reports after the due date without prior approval then a penalty of 5% of the total marks gained by the student for the assignment may apply for each working day late.
- 4 Requirements for student to be awarded a passing grade in the course:
To be assured of a passing grade, students must demonstrate, via the summative assessment items, that they have achieved the required minimum standards in relation to the objectives of the course by obtaining at least 50% of the total marks available for the course.

- 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 obtained for each of the summative assessment items in the course.
- 6 Examination information:
There is no examination in this course.
- 7 Examination period when Deferred/Supplementary examinations will be held:
There is no examination in this course.
- 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

- 1 In order to attend laboratory classes, students must provide and wear appropriate personal protective equipment. This shall include a laboratory coat, closed in shoes, and safety glasses. Such equipment must be approved by supervising staff. Failure to provide and wear the appropriate safety equipment will result in students being excluded from classes.