DEPARTMENT OF CHEMISTRY AND BIOMOLECULAR SCIENCES

UNIT GUIDE AND TIMETABLE

CBMS335 – MEDICAL MICROBIOLOGY

SEMESTER 1  2011

UNIT CONVENOR – Dr. M JOSIE LATEGAN
CBMS335 – Medical Microbiology, 2011

CBMS335 MEDICAL MICROBIOLOGY UNIT GUIDE

Year and Semester: Semester 1, 2011

Unit convenor: Dr M. J Lategan

Prerequisite: CBMS215 (P) or CBMS224 (P)

Co-badged: This unit shares some teaching with HLTH305

Assumed Knowledge: This unit requires prior understanding and knowledge of general microbiology concepts

Students in this unit should read this unit guide carefully. It contains important information about the unit. If anything in it is unclear, please consult the unit convenor, Dr. M Josie Lategan.

ABOUT THIS UNIT

Credit Points: 3 (equivalent to an average of 9 hours/week of contact and self-study)

Contact Hours:
The unit consists of two lectures of 2 hrs each per week held jointly with HLTH305 and one 3-hour Practical class per week. Practical classes are compulsory.

When Offered: First Half-Year

Staff Contact: Dr M Josie Lategan
Department of Chemistry and Biomolecular Sciences
F7B room 123
Phone: 9850 8296
E-mail: Maria.Lategan@mq.edu.au

Welcome to CBMS335 Medical Microbiology. This unit is concerned with the importance of microorganisms in medicine. In the first module, the student is introduced to the world of microbial structure and function particularly in relation to their role in health and disease. The second module of basic immunology outlines the importance of nonspecific and specific (humoral and cellular) defence mechanisms of the human body. The third module is a system based approach to infectious diseases - major human diseases caused by bacteria, viruses, protozoa and fungi are discussed. General principles of public health and of infection control are discussed in the context of a primary care health worker. Tutorials allow students to explore the theory behind the laboratory diagnostic approach while weekly laboratory sessions provide students with the skills to interpret both clinical samples and cultures submitted for microbiology analysis. The sessions concentrate on demonstrating how to handle microorganisms safely, the approach and techniques used to identify bacteria in a clinical laboratory.

CBMS335 is co-badged with HLTH305, a unit that is designed for the Chiropractic students and those entering the public health sector. CBMS335 is designed for students majoring in biomolecular sciences, biomedical sciences, medical sciences and related disciplines. Whilst both units have the same lectures they are separated by different laboratory components, tutorials and assessment tasks.
TEACHING STAFF

- Dr. M Josie Lategan F7B 123, Ph: 9850 8296, E-mail: Maria.Lategan@science.mq.edu.au
- A/Prof Subramanyam Vemulpad, E7A 226, Ph: 98509385,
  Subramanyam.vemulpad@mq.edu.au
- Mrs Elsa Mardones Scientific officer, Ph: 9850 8184, Elsa.Mardones@mq.edu.au

Dr. M Josie Lategan is the convenor of this unit. Josie will be coordinating the Practical component of
the course and any administrative aspects. Josie will be able to assist you with any queries via email
and will be available for consultation on Tuesdays, Wednesdays and Fridays.

A/Prof Subramanyam Vemulpad will coordinate the Lecture component. Please email A/Prof
Vemulpad should you have any queries regarding the theory component of the course.

Mrs Elsa Mardones will ensure that all aspects of the laboratory sessions run smoothly as well as
contributing with her microbiology knowledge during prac classes. Often there will be the need to
review your cultures 24-48 hours after the laboratory class. Please contact Elsa by email (well in
advance) to organise a suitable time to meet.

REQUIRED AND RECOMMENDED TEXTS AND/OR MATERIALS

Prescribed Texts and Materials:
Microbiology: a human perspective / Eugene W. Nester. 6th edition. Publisher: Boston : McGraw-
Hill, 2009.

CBMS335 Practical Notes will be provided every week for the following week’s class. It is each
student’s responsibility to cover the material provided in their own time before each practical class in
order to be prepared to conduct the experiments with minimal instruction.

Also recommended
Microbiology and infection control for health professionals/ Gary Lee and Penny Bishop. 4th

Microbiology. 23 Edn. New York: Lange Medical Books/McGraw-Hill


Education, USA.

Useful web sites:
Communicable Diseases Australia:
index.htm-copy4
Centre for Diseases Control, USA: http://www.cdc.gov/DiseasesConditions/
Immunisation resources: http://www.immunise.health.gov.au
World Health organisation Infectious Diseases: http://www.who.int/topics/infectious_diseases/en/
CLASSES

**Lectures** will be held on:  
- Thursdays  14 - 16 in E7BT4  
- Fridays  12 - 14 in E7BT4

The lectures (two lectures of 2 hrs each per week) are held jointly with HLTH305. Lectures begin 24th February 2011. Lecture slides can be downloaded from the unit web site ([http://learn.mq.edu.au](http://learn.mq.edu.au)) one day before the lecture.

**Practicals** will be held on:  
- Tuesdays 2-5 pm in E8A 150

Practicals start in the first week of the semester (22nd February 2011). **Please note that practical classes are a compulsory component for this course. Medical certificates are required should you be absent due to illness.** These should be submitted together with a special consideration request which can be found at: [www.mq.edu.au/policy/docs/special_consideration/policy.html](http://www.mq.edu.au/policy/docs/special_consideration/policy.html) and handed in to the Science Centre E7A as soon as possible.

**Tutorials** will be held in the first 5 weeks of the semester during the last hour of the Friday lecture (1-2 pm). Venue for the tutorial to be announced.

UNIT WEB PAGE

The URL of the CBMS335 Medical Microbiology Blackboard site is:  
[http://learn.mq.edu.au/](http://learn.mq.edu.au/)

You will be asked for a username and password. Your username is your student MQID. Your MQID and password have been mailed to you by the University. If you have lost them go to the student portal:  
[http://my.mq.edu.au](http://my.mq.edu.au).

You are expected to access the unit web site frequently. This site contains important information including notes on ALL the topics to be covered.

TECHNOLOGY USED

You are expected to access the unit web site on a frequent basis and download PDF files provided. Please note information may also be sent by email to your student email account so please look at your email account on a frequent basis.

GRADUATE CAPABILITIES

The aim of this unit is to enhance and develop a number of graduate capabilities in all students. Some of the attributes and skills that CBMS335 can help you develop include:

1. Discipline Specific Knowledge and Skills
2. Critical, Analytical and Integrative Thinking
3. Problem Solving and Research Capability
4. Creativity and Innovation
5. Effective Communication
6. Engaged and Ethical Local and Global citizens
7. Socially and Environmentally Active and Responsible
8. Capable of Professional and Personal Judgement and Initiative
9. Ethical practise

CBMS335 contributes to the above Graduate Capabilities, by providing the relevant learning experiences and outcomes:

1. Demonstrate a knowledge of the basic sciences, in sufficient depth and scope to allow for an understanding of the scientific knowledge, concepts and methods fundamental to acquiring and applying clinical science;

2. Demonstrate knowledge, skills and attitudes necessary for understanding socio-economic, demographic and cultural determinants of causes, distribution and consequences of health problems.

3. Demonstrate a capability to read, listen, question, gather and evaluate information resources in a variety of formats and develop your problem solving and research skills through laboratory classes in particular with clinical case studies. The problem solving will include situations where there are clear solutions as well as situations demanding critical, analytical and integrative thinking.

4. Demonstrate an ability to analyse, to interpret and assess data and information in various forms; and drawing connections across fields of knowledge.

5. Demonstrate a capability to assess, write clearly, speak effectively, and to use visual communication and communication technologies as appropriate as well as engage with other colleagues from a variety of cultural, social and economic backgrounds, giving you the opportunity to develop your ability to work and communicate with others.

6. Demonstrate a respect for diversity, open-mindedness, sensitivity to others and openness to other cultures and perspectives through engagement with colleagues in laboratory classes.

7. Demonstrate: an awareness of and have respect for self and others; an ability to work with others as a leader and a team player; a sense of connectedness with others and country; and a sense of mutual obligation.

8. Demonstrate emotional intelligence, sound interpersonal skills, discernment and common sense in their professional and personal judgment and, exercise initiative as needed.
9. Demonstrate scientific honesty at all times. This especially important with the ‘real-life’ clinical case studies undertaken in laboratory work where you will need to record observations and report on results in an accurate and truthful manner.

**EXPECTED LEARNING OUTCOMES**

By the conclusion of this unit, students should be able to:

<table>
<thead>
<tr>
<th>Learning Outcome</th>
<th>Graduate capability to which it contributes</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Describe briefly the history and scope of the disciplines of Medical Microbiology.</td>
<td>1, 2</td>
</tr>
<tr>
<td>2. Comprehend possible reasons for the changing face of Infectious Disease over the years.</td>
<td>1, 2, 3, 4, 5</td>
</tr>
<tr>
<td>3. Describe the major groups of microorganisms: Bacteria, Viruses, Fungi, Protozoa and other parasites</td>
<td>1, 3, 5</td>
</tr>
<tr>
<td>4. Describe and explain issues relevant to the epidemiological aspects of infectious diseases.</td>
<td>1, 2, 3, 4, 5</td>
</tr>
<tr>
<td>5. Describe and explain issues related to the prevention and control of infection in communities.</td>
<td>1, 2, 3, 4, 5</td>
</tr>
<tr>
<td>6. Understand the importance of non specific and specific defence mechanisms (immunity) of the body</td>
<td>1, 2, 3, 4, 5</td>
</tr>
<tr>
<td>7. Describe and explain issues related to immunisation.</td>
<td>1, 2, 3, 4, 5</td>
</tr>
<tr>
<td>8. Describe the principles and rationale for management of patients with an infection or an infectious disease.</td>
<td>1, 2, 3, 4, 5</td>
</tr>
<tr>
<td>9. Explain the consequences of the indiscriminate use of antibiotics.</td>
<td>1, 2, 3, 5</td>
</tr>
<tr>
<td>10. Describe the principles and rationale for educating patients in infection control and disease prevention.</td>
<td>1, 2, 3, 4, 5</td>
</tr>
<tr>
<td>11. Understand the importance of bacteriological media and its application</td>
<td>1, 2, 3, 4, 5, 6, 7</td>
</tr>
<tr>
<td>12. Understand and interpret laboratory microscopy and cultures of pathogens from clinical specimens</td>
<td>1, 2, 3, 4, 5, 6, 7, 8, 9</td>
</tr>
<tr>
<td>13. Describe and evaluate <em>in vitro</em> antibiotic susceptibility profiles</td>
<td>1, 2, 3, 4, 5, 6, 7, 8, 9</td>
</tr>
</tbody>
</table>

**TEACHING AND LEARNING STRATEGY**

CBMS335 is a 3 credit point, half year unit and will require an average of 9 hours of work per week (contact hours plus self study time).

The **unit expectation** is that you will:

- Read the recommended material and prepare for the laboratory classes.
- Attend all sessions, with laboratory classes being compulsory.
- Demonstrate reasonable competence in the assignments and tutorials.
- Perform satisfactorily in the final exam.
If you prepare and attend all components of the unit and work consistently and continuously throughout the semester, you should be able to develop a strong understanding of the subject whilst developing the skills specific to diagnostic microbiology and perform satisfactorily in this unit.

- **Laboratory classes** are designed to develop basic laboratory skills, general safety practices and critical and analytical thought. In-lab and post-lab work is designed to allow you to appropriately record your laboratory observations in a detailed and accurate manner, assess your understanding of the theory behind the clinical approach and to use this understanding to solve related problems.

### ASSESSMENT IN THIS UNIT.

<table>
<thead>
<tr>
<th>Task</th>
<th>Weight</th>
<th>Due Date</th>
<th>Linked Learning Outcomes</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Mid-semester test</td>
<td>10%</td>
<td>3rd April (Tuesday), 2 pm 2011</td>
<td>1-4</td>
</tr>
<tr>
<td>2. Assignment 1</td>
<td>15%</td>
<td>27th April 2011</td>
<td>1, 2, 3, 4, 5, 6, 7, 9</td>
</tr>
<tr>
<td>3. Assignment 2</td>
<td>25%</td>
<td>31st May 2011</td>
<td>1-9</td>
</tr>
<tr>
<td>4. Final Examination</td>
<td>50%</td>
<td>June 2011 (University Exam Period)</td>
<td>1,2,3,4,9</td>
</tr>
</tbody>
</table>

For passing this Unit, the theory and practical component must be completed satisfactorily. The final mark for the Practical component (out of 50) will consist of the marks obtained from two assessments and the mid semester test.

### Assessments

**Assignment 1 (15%) due 27th April 2011**
Submission of an Expression of Interest (EOI) for a research proposal. This assignment will be undertaken as group work and effort.

For the assignment you will prepare an Expression of Interest (EOI) for a research project to be carried out at Macquarie University in a two-year funded Fellowship. Such research Fellowships are highly competitive and an Expression of Interest provides an opportunity for a candidate to propose an idea for a project and demonstrate his/her/their skills to carry out the project. The Expression of Interest provides the reviewers with an outline of what the project is about, what can be achieved, the significance and benefits of the work.

The EOI should be no longer than 2 pages, with Arial font, size 12, single space. A series of headings are provided in order to guide you with the preparation of the EOI for your project.

1. **Title of proposed project**
2. **Project aims**
3. **Background**
4. **Expected outcomes**
5. **Significance**
6. **Approach and methodology**
7. **Benefit to Macquarie University and Australia**

Whichever way you choose to include in the EOI the aim is to make a convincing case that is easily judged by the reader that your project: will be productive; bring something useful; and will deliver outcomes.

Your EOI written component will be assessed on the basis of the following criteria:

1. **Relevance** - will it fill a knowledge gap?
2. **Merit of the research** - will the project make a contribution to society’s knowledge base? Is the methodology sound?
3. **Potential for success** - given the objectives and methodology what is the likelihood of success of the project?
4. You will have the opportunity to ‘pitch’ your proposal in a 2-minute presentation.

**Topics**

1. Macquarie University's Indigenous Bioresources Research Group (IBRG), a group that investigates traditional knowledge as a significant medicinal resource, has extracted a fraction from a plant which could potentially possess medicinal value. As this plant has been known and used by the Yaegl people in northern NSW in combating skin infections, the research group believes that there might be antibacterial or antifungal properties which could be of medicinal benefit. You are required to prepare an Expression of Interest in order to investigate the antibacterial or antifungal activity of the fraction and hence determine its application for future development of an alternative medicine.

2. The emergence of antibiotic resistance is a global problem. Since the 1970’s no new antimicrobial classes have been discovered. It is quite interesting that although there has been an increase in antibiotic resistance in recent years, particularly in multi-resistant strains of organisms the rate of development for new antimicrobial drugs has abated. Any new drugs are mainly chemical derivatives of existing drugs. Recent findings suggest that marine corals may contain microbes that produce antimicrobial substances. The bioresource group at Macquarie University maintains a seawater tank with Red Sea stony corals in order to study their ecology. Prepare an Expression of Interest to develop a project to screen these corals for antimicrobial activity.

3. The number of prescriptions for Norfloxacin, a first line quinolone antibiotic used for the management of urinary tract infections has tripled in the last five years. However, there is no data available to determine whether there has been a subsequent increase in the isolation of urinary tract pathogens resistant to this antibiotic. Prepare an Expression of Interest for a collaborative project with Douglass Hanly Moir Pathology, the biggest pathology service provider in the community, to determine whether resistance to this antibiotic is emerging in clinical isolates.

4. A recent visit to a remote rural clinic in the Northern Territory revealed very poor infection control practices by the staff. The level of health care associated infection at the clinic was particularly high. A very quick assessment revealed that staff, particularly nurse assistants which often consisted of volunteering members of the local community were poorly trained in the application of infection control techniques.
control practices. Prepare an Expression of Interest to develop an educational pack that promotes the application of infection control procedures for the clinic.

**Assignment 2 (25%) due 3rd June 2011**
A variety of case studies in clinical microbiology submitted for microbial analysis at Douglass Hanly Moir pathology will be provided. Over a number of weeks your group will follow clinical guidelines used in pathology laboratories to assess the case study provided. This will entail reviewing and interpreting the patient clinical history, specimen/s received, interpret microscopy and cultures, identify the agent/s responsible and provide recommendations based on your findings. Your group will then present your case study in a detailed seminar which will focus on your approach to successfully identify the microbial agent responsible including general information about the specific agent/s, its occurrence in the community, epidemiology, importance in medicine and infection.

In addition to the assessments mentioned above, the practical/tutorial component will also have additional sections entitled “The Microbial Minute” and spot quizzes. For the microbial minute exercise, students are provided each week with a specific topic in microbiology which they have to research briefly and then present the facts to the class in the following prac session. Spot quizzes will be based on the pre-lab material provided to ensure that the students are well prepared for the prac class. These will serve as early diagnostic assessment tasks and can be used to support your aggregate should the need arise.

**Mid semester test: 5 April (Tuesday), 2 pm 2011.** This will include material discussed up to week 7 of lectures/tutorials/pracs. Questions will be of multiple choice, True or False, fill in/match words nature and short answer questions.

**Examinations**
The final examination will cover the content of the entire semester. Questions will include multiple choice questions, True or False and short and long answer questions.

The University Examination period for First Half Year 2011 is from 7th June 2011. You are expected to present yourself for examination at the time and place designated in the University Examination Timetable. The timetable will be available in draft form approximately eight weeks before the commencement of the examinations and in Final form approximately four weeks before the commencement of the examinations. [http://www.timetables.mq.edu.au/exam](http://www.timetables.mq.edu.au/exam)

The only exception to not sitting an examination at the designated time is because of documented illness or unavoidable disruption. In these circumstances you may wish to consider applying for Special Consideration. Information about unavoidable disruption and the special consideration process is available at Policy Central: [http://www.mq.edu.au/policy/](http://www.mq.edu.au/policy/)

If a Supplementary Examination is granted as a result of the Special Consideration process the examination will be scheduled after the conclusion of the official examination period. You are advised that it is Macquarie University policy not to set early examinations for individuals or groups of students. All students are expected to ensure that they are available until the end of the teaching semester, that is, the final day of the official examination period.

**Grades**
Achievement of grades will be based on the following criteria:
High Distinction: provides consistent evidence of deep and critical understanding in relation to the learning outcomes. There is substantial originality and insight in identifying, generating and communicating competing arguments, perspectives or problem solving approaches; critical evaluation of problems, their solutions and their implications; creativity in application.

Distinction: provides evidence of integration and evaluation of critical ideas, principles and theories, distinctive insight and ability in applying relevant skills and concepts in relation to learning outcomes. There is demonstration of frequent originality in defining and analysing issues or problems and providing solutions; and the use of means of communication appropriate to the discipline and the audience.

Credit: provides evidence of learning that goes beyond replication of content knowledge or skills relevant to the learning outcomes. There is demonstration of substantial understanding of fundamental concepts in the field of study and the ability to apply these concepts in a variety of contexts; plus communication of ideas fluently and clearly in terms of the conventions of the discipline.

Pass: provides sufficient evidence of the achievement of learning outcomes. There is demonstration of understanding and application of fundamental concepts of the field of study; and communication of information and ideas adequately in terms of the conventions of the discipline. The learning attainment is considered satisfactory or adequate or competent or capable in relation to the specified outcomes.

Fail: does not provide evidence of attainment of all learning outcomes. There is missing or partial or superficial or faulty understanding and application of the fundamental concepts in the field of study; and incomplete, confusing or lacking communication of ideas in ways that give little attention to the conventions of the discipline.

Please note that a Conceded Pass grade is no longer awarded at Macquarie University.

It is our professional responsibility as your teachers to assign you a descriptive grade that accurately reflects your performance in a unit. Our grading decisions are subject to scrutiny from our academic colleagues at the Department, Faculty and University Senate level.

The expectations in order for you to attain a specific grade are outlined below:

<table>
<thead>
<tr>
<th>Grade</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Fail</td>
<td>Failure to complete all assessment tasks or unsatisfactory performance (≤50% total mark)</td>
</tr>
<tr>
<td>Pass</td>
<td>A minimum of 50% total mark.</td>
</tr>
<tr>
<td>Credit</td>
<td>A minimum of 50% in each assessment task, PLUS a minimum 65% total mark</td>
</tr>
<tr>
<td>Distinction</td>
<td>A minimum of 50% in each assessment task, PLUS a minimum 75% total mark</td>
</tr>
<tr>
<td>High</td>
<td>A minimum of 50% in each assessment task, PLUS a minimum 85%</td>
</tr>
</tbody>
</table>
## 5. UNIT SCHEDULE

### Lectures on Thursday 14-16 hrs & Friday 12-14 hrs, both in E7BT4

<table>
<thead>
<tr>
<th>Week</th>
<th>Date</th>
<th>Lecture Topic</th>
<th>Book Chapters</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>24-25 Feb</td>
<td>Origins of Microbiology, Microscopy, Staining, Cell Structure, Prokaryotes versus Eukaryotes</td>
<td>1, 3, 10</td>
</tr>
<tr>
<td>2</td>
<td>3-4 Mar</td>
<td>Biology of medically important Bacteria</td>
<td>4, 8, 13</td>
</tr>
<tr>
<td>3</td>
<td>10-11 Mar</td>
<td>Biology of medically important Viruses</td>
<td>13, 14</td>
</tr>
<tr>
<td>4</td>
<td>17-18 Mar</td>
<td>Other medically important ‘microbes’: Algae, Fungi, Protozoa and Worms</td>
<td>12</td>
</tr>
<tr>
<td>5</td>
<td>24-25 Mar</td>
<td>Controlling the growth of micro-organisms, Biotechnology and its Applications in Medical Microbiology</td>
<td>5, 21, 19</td>
</tr>
<tr>
<td>6</td>
<td>31 March- 1 Apr</td>
<td>Host defence mechanisms – non-specific defences</td>
<td>15</td>
</tr>
<tr>
<td>7</td>
<td>7-8 Apr</td>
<td>Specific defence mechanisms, Applied Immunology, Immunological disorders, Issues concerning Immunisation</td>
<td>16, 19, 18</td>
</tr>
<tr>
<td>8</td>
<td>28-29 April</td>
<td>The Host versus the Micro-organism: Interaction between the Micro-organisms and the Host, Principles of Epidemiology of Infectious Diseases</td>
<td>17, 20</td>
</tr>
</tbody>
</table>
Infection Control
HIV and Emerging Infectious Diseases

9. 5-6 May
Infections of the Integumentary system
Infections of Wound

10. 12-13 May
Infections of the Respiratory System
Infections of Circulatory System; bones and joints

11. 19-20 May
Infections of the Genito Urinary System
Infections of the Nervous System and Special Senses

12. 26-27 May
Infections of the Alimentary System

13. 2-3 Jun
Assignment 2 seminar

Practical Schedule. Practicals in E8A 150 on Tuesdays 2-5 pm.

<table>
<thead>
<tr>
<th>Week</th>
<th>Date</th>
<th>Practical Number</th>
<th>Activity</th>
<th>Graduate capabilities</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>22/02/11</td>
<td>1</td>
<td>Introduction to medical microbiology unit. Isolating bacterial flora (superficial sites)</td>
<td>1, 2, 3, 6, 7, 9</td>
</tr>
<tr>
<td>2</td>
<td>1/03/11</td>
<td>2</td>
<td>Microbiology media.</td>
<td>1, 2, 3, 5, 6, 7, 9</td>
</tr>
<tr>
<td>3</td>
<td>8/03/11</td>
<td>3</td>
<td>Disinfection and Antibiotic susceptibility</td>
<td>1, 2, 3, 4, 6, 7, 8, 9</td>
</tr>
<tr>
<td>4</td>
<td>15/03/11</td>
<td>4</td>
<td>Normal bacterial flora Gram stains Diagnostic microbiology- Processing (and interpreting samples) for microbiology analysis.</td>
<td>1, 2, 3, 4, 5, 6, 7, 8, 9</td>
</tr>
<tr>
<td>5</td>
<td>22/03/11</td>
<td>5</td>
<td>Diagnostic microbiology- Interpreting and reporting</td>
<td>1, 2, 3, 4, 5, 6, 7, 8, 9</td>
</tr>
</tbody>
</table>
cultures for microbiology analysis.

<table>
<thead>
<tr>
<th></th>
<th>Date</th>
<th>Week</th>
<th>Activity</th>
<th>Graduate capabilities</th>
</tr>
</thead>
<tbody>
<tr>
<td>6</td>
<td>29/03/11</td>
<td>6</td>
<td>Lab visit- Douglass Hanly Moir Pathology</td>
<td>1, 2, 3, 6, 7, 8, 9</td>
</tr>
<tr>
<td>7</td>
<td>5/04/11</td>
<td>7</td>
<td>Assignment 1 – EOI preparation</td>
<td>1, 2, 3, 6, 7, 8, 9</td>
</tr>
</tbody>
</table>

Semester break

<table>
<thead>
<tr>
<th></th>
<th>Date</th>
<th>Week</th>
<th>Activity</th>
<th>Graduate capabilities</th>
</tr>
</thead>
<tbody>
<tr>
<td>10</td>
<td>3/05/11</td>
<td>8</td>
<td>Mycology</td>
<td>1, 2, 3, 6, 7, 8, 9</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Assignment 1 due</td>
<td></td>
</tr>
<tr>
<td>11</td>
<td>10/05/11</td>
<td>9</td>
<td>Assignment 2: Clinical cases in Microbiology</td>
<td>1, 2, 3, 4, 5, 6, 7, 8, 9</td>
</tr>
<tr>
<td>12</td>
<td>17/05/11</td>
<td>10</td>
<td>Clinical cases</td>
<td>1, 2, 3, 4, 5, 6, 7, 8, 9</td>
</tr>
<tr>
<td>13</td>
<td>24/05/11</td>
<td>11</td>
<td>Clinical cases</td>
<td>1, 2, 3, 4, 5, 6, 7, 8, 9</td>
</tr>
<tr>
<td>14</td>
<td>31/05/11</td>
<td>12</td>
<td>Clinical cases</td>
<td>1, 2, 3, 4, 5, 6, 7, 8, 9</td>
</tr>
<tr>
<td>15</td>
<td>3/06/11*</td>
<td>13</td>
<td>Assignment 2: Seminar</td>
<td>1, 2, 3, 4, 5, 6, 7, 8, 9</td>
</tr>
</tbody>
</table>

*Assignment 2 seminar will take place during lecture time on Thursday 2/6/2011 (2-6 pm) and Friday 3/6/2011 (12-2pm) in the CBMS seminar room.

**Tutorial schedule:** Tutorials will be run on Fridays 1-2 pm. Tutorial venue: TBA

<table>
<thead>
<tr>
<th>Week</th>
<th>Date</th>
<th>Tutorial</th>
<th>Activity</th>
<th>Graduate capabilities</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>25/02/11</td>
<td>1</td>
<td>Media, bacteria flora in superficial body sites</td>
<td>1, 2, 3, 4, 5, 6, 7, 8, 9</td>
</tr>
<tr>
<td>2</td>
<td>4/03/11</td>
<td>2</td>
<td>Antibiotics and disinfectants.</td>
<td>1, 2, 3, 4, 5, 6, 7, 8, 9</td>
</tr>
<tr>
<td>3</td>
<td>11/03/11</td>
<td>3</td>
<td>Introduction to normal flora, Diagnostic microbiology: processing and analysing specimens</td>
<td>1, 2, 3, 6, 7, 8, 9</td>
</tr>
<tr>
<td>4</td>
<td>18/04/11</td>
<td>4</td>
<td>Diagnostic microbiology- Culture interpretation.</td>
<td>1, 2, 3, 4, 5, 6, 7, 8, 9</td>
</tr>
<tr>
<td>5</td>
<td>25/03/11</td>
<td>5</td>
<td>Diagnostic microbiology-tutorial examples to solve.</td>
<td>1, 2, 3, 6, 7, 8, 9</td>
</tr>
</tbody>
</table>
SPECIAL CONSIDERATION REQUESTS INCLUDING NON-ATTENDANCE AND EXTENSIONS

The University is committed to equity and fairness in all aspects of its learning and teaching. In stating this commitment, the University recognises that there may be circumstances where a student is prevented by unavoidable disruption from performing in accordance with their ability. The University has a policy on special consideration request that may be found at www.mq.edu.au/policy/docs/special_consideration/policy.html. The University recognises that at times an event or set of circumstances may occur that:

- could not have reasonably been anticipated, avoided or guarded against by the student AND
- was beyond the student’s control AND
- caused substantial disruption to the student’s capacity for effective study and/or completion of required work AND
- substantially interfered with the otherwise satisfactory fulfilment of a unit or program requirements AND
- was of at least three (3) consecutive days duration within a study period and/or prevented completion of a formal examination.

This policy is instituted to support students who experience serious and unavoidable disruption such that they do not reach their usual demonstrated performance level. The form required to submit for a request for special consideration can be found at www.registrar.mq.edu.au/Forms/APScons.pdf. This form should be submitted as soon as possible to allow due consideration.

Non-Attendance: Students unable to attend a laboratory session or the final exam due to illness or other extenuating circumstances must fill in a special consideration form and provide formal documentary evidence to the Science Centre E7A as soon as possible AND contact Dr Josie Lategan as soon as possible. The intensive nature of laboratory sessions means that non-attendance can significantly impact on progress.

Extensions and penalties

10% of the mark allocated for the assignment will be deducted per day that any work is submitted late. The deadlines for assignments are not negotiable. Only medical certificates and/or other appropriate supporting documents outlining other serious, extenuating circumstances can be used to submit an assignment after the due date without penalty. All applications for special consideration or extension must be sought before the due date unless this is absolutely impossible. All applications for extensions of deadlines must be submitted to the subject convener.

UNIVERSITY POLICY ON ASSESSMENT

The University considers that assessment “of student learning performance and feedback on progress are pivotal and important processes in University learning and teaching. Assessment tasks communicate to students what must be learned and are vehicles by which the University assures itself, and society, of its graduates’ capabilities” and is based on the “premise that it is important that through assessment students are encouraged to engage in their education, rather than merely pursue grades.”
Student engagement is best facilitated by learner managed learning in which students are active partners in the process through undertaking challenging responsibilities and making choices.” There are responsibilities and rights for both staff and students in respect to assessment. These include, but are not limited to, the right of academic staff to require that students:

- be focused on learning rather than merely the achievement of grades;
- make the effort to be informed of the rules and requirements for progression in their degree program;
- get assistance from the department, faculty and/or institution if they so require it;
- behave ethically and responsibly in their conduct of assessment tasks;
- engage in critical self evaluation in terms of their progress towards the espoused learning expectations;
- submit work on time that is their own except when shared ownership is part of the task;
- notify their lecturers as soon as possible if difficulties arise with timing, online access, availability of resources or other requirements of the task;

Students have a right to:

- be informed about all aspects of assessment policy and practices in each unit of study including criteria, standards and procedures to be met and penalties for breaches;
- have consistent application of policies, procedures and penalties;
- timely return of results with feedback to enable improved performance;
- information that allows them to calibrate their own performance against the expected performance standards;

The full statement on the Assessment Policy, Code of Practice and Procedure can be found at:


**ACADEMIC HONESTY**

The University declares that it is a “fundamental principle” that “all staff and students act with integrity in the creation, development, application and use of ideas and information”. This means that:

- all academic work claimed as original is the work of the author making the claim
- all academic collaborations are acknowledged
- academic work is not falsified in any way
- when the ideas of others are used, these ideas are acknowledged appropriately

You should be familiar with the University’s Policy on Academic Honesty practices and its Statement on Ethics. These can be found in the *Handbook of Undergraduate Studies* or on the web at:

Handbook Statement:  

Academic Honesty Policy:  
www.mq.edu.au/policy/docs/academic_honesty/policy.htm

Ethics Statement:  
The policies and procedures explain what academic dishonesty is, how to avoid it, the procedures that will be taken in cases of suspected dishonesty, and the penalties if you are found guilty. Penalties may include a deduction of marks, failure in the unit, and/or referral to the University Discipline Committee.

**Examples** of dishonest academic behaviours are:

**Plagiarism:** Using the work or ideas of another person and presenting this as your own without clear acknowledgement of the source of the work or ideas. This includes, but is not limited to, any of the following acts:

a) copying out part(s) of any document or audio-visual material or computer code or website content without indicating their origins

b) using or extracting another person’s concepts, experimental results, or conclusions

c) summarising another person’s work

d) submitting substantially the same final version of any material as another student in an assignment where there was collaborative preparatory work

e) use of others (paid or otherwise) to conceive, research or write material submitted for assessment

f) submitting the same or substantially the same piece of work for two different tasks (self-plagiarism).

**Deception:** includes, but is not limited to, false indication of group contribution, false indication of assignment submission, collusion, submission of a work previously submitted, creating a new article out of an existing article by rewriting/reusing it, using the same data to form the same arguments and conclusion, presenting collaborative work as one’s own without acknowledging others’ contributions, cheating in an examination or using others to write material for examination.

**Fabrication:** includes, but is not limited to, creating fictitious clinical data, citation(s), or referee reports.

**Sabotage:** includes, but is not limited to, theft of work, destruction of library materials.

Assignments are to be your own work. Using someone else’s words (either another student’s or from a book or journal article or a web site) without clear acknowledgement is plagiarism and can incur serious penalties.

In the event that a Lecturer identifies a case of academic dishonesty, the student will be advised, either on the submitted work or by a separate letter, and a record kept in the Faculty office. Students will always have the opportunity to discuss each case with their Lecturer if they indicate they wish to do so by either contacting the Lecturer or the Head of Department. Proven cases of academic dishonesty may result in the immediate award of an “F” grade.

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**OTHER UNIVERSITY POLICIES**

Macquarie University is developing a number of policies in the area of learning and teaching. Approved policies and associated guidelines can be found at Policy Central: [www.mq.edu.au/policy](http://www.mq.edu.au/policy).

**STUDENT SUPPORT SERVICES**

Macquarie University provides a range of Student Support Services. Details of these services can be obtained at [www.futurestudent.mq.edu.au/undergraduate/AccessingStudentSupport/index.html](http://www.futurestudent.mq.edu.au/undergraduate/AccessingStudentSupport/index.html).
**CHANGES TO THE UNIT SINCE LAST OFFERING**

The practical session has been decreased from 4 to 3 hours in length. This means that in these sessions you will be required to work expediently. A one-hour tutorial session has been introduced to help you prepare for the laboratory sessions by serving to introduce the topic for the following week’s practical session and cover the theory component of the practical session.

The Conceded Pass grade has been discontinued, in line with the University policy.

**FEEDBACK**

We are always open to suggestions for improving the content and delivery of this course. Please provide any feedback to: Josie Lategan, Subramanyam Vemulu or Elsa Mardones.