Unit Outline
PUBH3001 Applied Research and Biostatistics
Semester 1, 2016

Unit study package code: PUBH3001
Mode of study: Internal
Tuition pattern summary: Note: For any specific variations to this tuition pattern and for precise information refer to the Learning Activities section.
Lecture: 12 x 2 Hours Semester
Computer Laboratory: 6 x 2 Hours Semester
Tutorial: 6 x 2 Hours Semester
This unit does not have a fieldwork component.

Credit Value: 25.0
Pre-requisite units: Nil
Co-requisite units: Nil
Anti-requisite units: 304661 (v.0) Environmental Health Applied Research 384 or any previous version
Result type: Grade/Mark
Approved incidental fees: Information about approved incidental fees can be obtained from our website. Visit fees.curtin.edu.au/incidental_fees.cfm for details.

Unit coordinator: Title: Dr
Name: Ravayi Marindo
Phone: +61 8 9266 7546
Email: Ravayi.Marindo@curtin.edu.au
Location: Building: 400 - Room: 430
Consultation times: By appointment with the Unit Coordinator. Dr Ravayi Marindo is also the Applied Research Lecturer and Biostatistics Computing Tutor

Teaching Staff: Name: Dr Christopher Fisher (Health Promotion Tutor)
Phone: + 618 9266 2358
Email: Christopher.Fisher@curtin.edu.au
Location: Building: 400 - Room: 464
Name: Krassi Rumchev (Health and Safety Tutor)
Phone: + 618 9266 4342
Email: Krassi.Rumchev@curtin.edu.au
Location: Building: 400 - Room: 332

Administrative contact: Name: School of Public Health Student Support Office
Phone: + 61 8 9266 7927
Email: PHealthStudentSupport@curtin.edu.au
Location: Building: 400 - Room: 310

Learning Management System: Blackboard (lms.curtin.edu.au)
Acknowledgement of Country

We respectfully acknowledge the Indigenous Elders, custodians, their descendants and kin of this land past and present.

Syllabus

The concepts of research methodology and experimental designs. Review of descriptive statistics; concepts of hypothesis testing; estimation and confidence intervals; parametric and non-parametric statistical analysis; correlation coefficients; statistical quality control and use of statistical software. Research methodology; validity and reliability; literature review; generation of research hypothesis; design of experiments; analysis and evaluation of results; preparation of research proposals; report writing, time and data management.

Introduction

IMPORTANT - PLEASE READ THE PRE-REQUISITE INFORMATION BELOW:

Before enrolling into PUBH3001 Applied Research and Biostatistics, students need to have passed 400 credits. Students must have also completed Evidence Informed Health Practice or Epidemiology 286 as a pre-requisite.

Core Unit Status:

This is a CORE UNIT. Failure of this core unit twice may lead to your exclusion from the course of study. All assessments must be attempted to pass this unit.

Welcome to PUBH3001 Applied Research and Biostatistics.

This unit outline has information for internal students.

Student Consultation Hours:

Student consultation with the Unit Coordinator is by appointment only.

Your Computing Tutors will assist you with your learning and any problems or difficulties you may experience in Biostatistics.

All your lecturers and tutors teach more than one Unit so they have many students to deal with. If you leave a message for the lecturer or tutor via email or telephone, allow for a response time of three working days.

Note: when contacting the teaching staff, please be aware that we are on Western Standard Time (+8 GMT).

Please check Blackboard under Applied Research Resources for further information about the tutors for Food Science and Nutrition. Information will be updated frequently.

Please ensure that you join the tutorial group for your particular discipline.

Double degree students:

- All Nutrition/Health Promotion double degree students, please join the Nutrition tutorial group.
- All Health Promotion/Occupational Health and Safety double degree students, please join the Health promotion tutorial group.
Unit Learning Outcomes

All graduates of Curtin University achieve a set of nine graduate attributes during their course of study. These tell an employer that, through your studies, you have acquired discipline knowledge and a range of other skills and attributes which employers say would be useful in a professional setting. Each unit in your course addresses the graduate attributes through a clearly identified set of learning outcomes. They form a vital part in the process referred to as assurance of learning. The learning outcomes tell you what you are expected to know, understand or be able to do in order to be successful in this unit. Each assessment for this unit is carefully designed to test your achievement of one or more of the unit learning outcomes. On successfully completing all of the assessments you will have achieved all of these learning outcomes.

Your course has been designed so that on graduating we can say you will have achieved all of Curtin’s Graduate Attributes through the assurance of learning process in each unit.

<table>
<thead>
<tr>
<th>On successful completion of this unit students can:</th>
<th>Graduate Attributes addressed</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Formulate, develop and defend a research proposal</td>
<td>![Symbol]</td>
</tr>
<tr>
<td>2. Design scientific methods applicable to discipline specific research</td>
<td>![Symbol]</td>
</tr>
<tr>
<td>3. Operate successfully as a team member in a research environment</td>
<td>![Symbol]</td>
</tr>
<tr>
<td>4. Use statistical software to analyse and interpret data</td>
<td>![Symbol]</td>
</tr>
<tr>
<td>5. Critically review research literature</td>
<td>![Symbol]</td>
</tr>
</tbody>
</table>

Curtin’s Graduate Attributes

- Apply discipline knowledge
- Thinking skills (use analytical skills to solve problems)
- Information skills (confidence to investigate new ideas)
- Communication skills
- Technology skills
- Learning how to learn (apply principles learnt to new situations) (confidence to tackle unfamiliar problems)
- International perspective (value the perspectives of others)
- Cultural understanding (value the perspectives of others)
- Professional Skills (work independently and as a team) (plan own work)

Find out more about Curtin’s Graduate attributes at the Office of Teaching & Learning website: ctl.curtin.edu.au
Learning Activities

This unit has two components:

- The **Biostatistics component** will run in Semester 1, weeks 1-7 and week 14 (review). A two hour lecture on Mondays and a 2 hour computer lab will be held every week (see below for the choices of class times).

- The **Applied Research component** will run in the second half of Semester 1 (weeks 9-13). There will be a two hour lecture on Mondays and a 2 hour tutorial every week. During the tutorials, students will be taught by discipline specific tutors. Please check the Unit Study calendar for specific dates and topics. Venues for tutorials will be announced at the first Applied Research Lecture.

**Please note: This unit has two components**

**Biostatistics: Weeks 1-7**

**Lecture (all students):** Monday 8.00am-10.00am, Building 408 Room 1019

**Computing Labs:** All computing labs are held in Building 400 Room 251

Monday 10am-12pm: Dr Ravayi Marindo
Tuesday 8am-10am: Dr Ravayi Marindo
Tuesday 6pm-8pm: Dr Ravayi Marindo
Wednesday 10am-12pm: Dr Ravayi Marindo
Thursday 8am-10am: Dr Ravayi Marindo
Friday 5pm-7pm: Dr Ravayi Marindo

**Please check for further announcements on Blackboard regarding tutors for the computer labs.**

**Important for all ARB students:**

Please note that the Biostatistics component will **not** cover basic numeracy skills. **Training in basic mathematics and numeracy skills will be provided by the Curtin Learning Centre during the first three weeks of Semester. It is the responsibility of each student to attend these Numeracy/Basic Mathematics workshops.** Please check Blackboard for the venues.

**Applied Research: Weeks 9-13**

- Health Science and Health Information Students - Monday 10am-12pm, Building 211 Room 223
- Health Safety and Environment Students - Tuesday 8am-10am, Building 216 Room 206
- Food Science Students - Tuesday 6pm-8pm, Building 216 Room 206
- Health Promotion Students - Wednesday 10am-12pm, Building 216 Room 206
- Nutrition Students - Thursday 8am-10am, Building 216 Room 206
Learning Resources

Essential texts

The required textbook(s) for this unit are:

- **For INTERNAL students:**
  You only need to purchase the book *SPSS ANALYSIS WITHOUT ANGUISH USING SPSS VERSION 20.0 FOR WINDOWS* by Sheridan Coakes. This book is available for purchase from the Curtin University Bookshop. Please note that you do not need to purchase SPSS software as you will have access to SPSS software installed in the computing labs provided on campus. However, you may wish to purchase the software for your own practice at home. In this case you may purchase the book and software together as recommended for external students.
  (ISBN/ISSN: 9781118337769)

Other resources

All learning materials and supplementary readings are available through Blackboard. Blackboard can be accessed through the Student OASIS portal: [www.oasis.curtin.edu.au](http://www.oasis.curtin.edu.au)

Your Blackboard login in details are: Student ID (username) & OASIS password. For further information on how to access OASIS and Blackboard, please refer to the OASIS help section: [http://oasis.curtin.edu.au/help/general/](http://oasis.curtin.edu.au/help/general/)
Assessment

Assessment schedule

<table>
<thead>
<tr>
<th>Task</th>
<th>Value %</th>
<th>Date Due</th>
<th>Unit Learning Outcome(s) Assessed</th>
</tr>
</thead>
</table>
| Critique                   | 15 percent | Week: 12  
Day: Monday 16th May 2016  
Time: Midnight (12.00am WST) | 5                                 |
| Biostatistics e-test       | 15 percent | Week: 7  
Day: Beginning Monday 11th April 2016  
Time: Midnight (12.00am WST) | 4                                 |
| Research Proposal          | 35 percent | Week: 14  
Day: Monday 30th May 2016  
Time: Midnight (12.00am WST) | 1,2,3                             |
| Final Biostatistics examination | 35 percent | Week: Examination Period  
Day: To be advised  
Time: To be advised | 4                                 |

Detailed information on assessment tasks

1. Critique (15%)
   
   
   - Students will have a lecture on "how to do a critique" in Research Lecture 1.
   - A sample paper will be provided to the students on Blackboard before this class, so they will have a chance to read it and understand the demonstration during class.
   - Students will be asked to critique research paper(s) as directed by your tutor. This will be worth 15%.
   - The critique form and marking criteria will be posted on Blackboard under "Resources".
   - **Students are to submit their critiques via Turnitin on Blackboard by: Week 12 (May 16th 2016).**
   - Please check with your tutors regarding discipline specific critique forms.
   - This is an individual activity.

2. Biostatistics e-Test (15%)
   
   **Assessment for Biostatistics Component (Weeks 1-7)** - ALL STUDENTS
   
   - There will be a multiple choice e-Test on Biostatistics during week 7.
   - It is the student’s responsibility to ensure that you have adequate access to both Blackboard and the SPSS software when you attempt the e-Test.
   - Further information will be provided via Blackboard.

3. Research Proposal and Peer Review of Team (35%)
   
   
   **PART A: Group Research Proposal**
   
   - Students will be assigned into a group with other students in your discipline. Tutors will inform their students of their group. number/group members during the Wednesday tutorial in week 8 and also on Blackboard under "Unit Materials Week 8".
Students will be given an list of possible research projects and you are to select one (or may be assigned one by tutor) to work on.

Possible research questions will be posted on Blackboard under "Unit Materials". Students are expected to look through these suggested topics and discuss with tutors during the first tutorial. Groups may also select their own topics for the research proposal.

Each student group will write a proposal based on their topic that is discipline specific. A research proposal template will be provided which will have various components such as: research question and objectives, literature review, research plan, ethical considerations etc. All worth 35%. The research proposal template and marking criteria will be posted on Blackboard under "Resources".

Research Proposal will need to be submitted via Turnitin on Blackboard by Week 14 (Monday 30th May 2016).

Further details regarding the assignment will be given during your lectures/tutorials and on Blackboard.

This is a group activity.

PART B: Individual Peer Review of other team members via SPARKPLUS

In your group setting, you will be required to give an assessment of the contribution given by all members of your group and yourself towards the group proposal. This peer review will be done anonymously via SPARKPLUS program.

All students will be registered for SPARKPLUS before Week 8.

Peer review of team members will need to be completed on SPARKPLUS by Week 14.

This is an individual activity

The group research proposal mark will be readjusted, using your final peer review evaluation on SPARKPLUS, to give you a final individual research proposal mark. Further explanation will be given at the first lecture.

Evidence of individual contribution towards the group activities will be requested should any dispute arise regarding individual final marks and peer review evaluations. It is the responsibility of every student to keep evidence of their contribution.

4. Final Biostatistics Examination (35%)

Assessment for the Biostatistics Component (Weeks 1-7) - ALL STUDENTS

There will be a multiple choice & TRUE/FALSE examination on Biostatistics scheduled during the University Final Examination Period.

Students should check their Final Exam Timetable on the Curtin Website for the correct date, time and venue.

Please refer to Blackboard for more details in Week 14 and during the Biostatistics review lecture.

Pass requirements

Students are expected to attempt all assessment components in order to satisfy the unit requirements.

Fair assessment through moderation

Moderation describes a quality assurance process to ensure that assessments are appropriate to the learning outcomes, and that student work is evaluated consistently by assessors. Minimum standards for the moderation of assessment are described in the Assessment and Student Progression Manual, available from policies.curtin.edu.au/policies/teachingandlearning.cfm

Late assessment policy

This ensures that the requirements for submission of assignments and other work to be assessed are fair, transparent, equitable, and that penalties are consistently applied.

1. All assessments students are required to submit will have a due date and time specified on this Unit Outline.
2. Students will be penalised by a deduction of ten percent per calendar day for a late assessment submission (eg a mark equivalent to 10% of the total allocated for the assessment will be deducted from the marked
value for every day that the assessment is late). This means that an assessment worth 20 marks will have two marks deducted per calendar day late. Hence if it was handed in three calendar days late and given a mark of 16/20, the student would receive 10/20. An assessment more than seven calendar days overdue will not be marked and will receive a mark of 0.

Assessment extension

A student unable to complete an assessment task by/on the original published date/time (eg examinations, tests) or due date/time (eg assignments) must apply for an assessment extension using the Assessment Extension form (available from the Forms page at students.curtin.edu.au/administration/) as prescribed by the Academic Registrar. It is the responsibility of the student to demonstrate and provide evidence for exceptional circumstances beyond the student’s control that prevent them from completing/submitting the assessment task.

The student will be expected to lodge the form and supporting documentation with the unit coordinator before the assessment date/time or due date/time. An application may be accepted up to five working days after the date or due date of the assessment task where the student is able to provide an acceptable explanation as to why he or she was not able to submit the application prior to the assessment date. An application for an assessment extension will not be accepted after the date of the Board of Examiners’ meeting.

Assessment extensions:

The Application for Assessment Extension form can be found at the following link:

NO Application for Assessment Extension will be considered without supporting documentation (as per instructions on the form).

Applications for Assessment Extension can be sent to:

- Directly to the Unit Coordinator - for requests up to 5 days extension. OR
- School of Public Health Teaching Support Office (PHTeachingSupport@curtin.edu.au) - where the extension is for more than 5 days or for the final piece of assessment.

The outcome of your Application for Assessment Extension will be notified to you by the Official Communication Channel (OCC) as per the Assessment and Student Progression Manual (refer to Section 13):

Appeals:

For details on the student appeals process, please refer to the Assessment and Student Progression Manual:

Deferred assessments

If your results show that you have been granted a deferred assessment you should immediately check your OASIS email for details.

Deferred examinations/tests will be held from 20/07/2016 to 22/07/2016. Notification to students will be made after the Board of Examiners’ meeting via the Official Communications Channel (OCC) in OASIS.

Supplementary assessments

Supplementary assessments, if granted by the Board of Examiners, will have a due date or be held between 20/07/2016 and 22/07/2016. Notification to students will be made after the Board of Examiners’ meeting via the Official Communications Channel (OCC) in OASIS.

It is the responsibility of students to be available to complete the requirements of a supplementary assessment. If your results show that you have been granted a supplementary assessment you should immediately check your OASIS email for details.
Referencing style

The referencing style for this unit is APA 6th Ed.
More information can be found on this style from the Library web site: http://libguides.library.curtin.edu.au/referencing.

Copyright

© Curtin University. The course material for this unit is provided to you for your own research and study only. It is subject to copyright. It is a copyright infringement to make this material available on third party websites.

Academic Integrity (including plagiarism and cheating)

Any conduct by a student that is dishonest or unfair in connection with any academic work is considered to be academic misconduct. Plagiarism and cheating are serious offences that will be investigated and may result in penalties such as reduced or zero grades, annulled units or even termination from the course.

Plagiarism occurs when work or property of another person is presented as one’s own, without appropriate acknowledgement or referencing. Submitting work which has been produced by someone else (e.g. allowing or contracting another person to do the work for which you claim authorship) is also plagiarism. Submitted work is subjected to a plagiarism detection process, which may include the use of text matching systems or interviews with students to determine authorship.

Cheating includes (but is not limited to) asking or paying someone to complete an assessment task for you or any use of unauthorised materials or assistance during an examination or test.

From Semester 1, 2016, all incoming coursework students are required to complete Curtin’s Academic Integrity Program (AIP). If a student does not pass the program by the end of their first study period of enrolment at Curtin, their marks will be withheld until they pass. More information about the AIP can be found at: https://academicintegrity.curtin.edu.au/Students/AIP.cfm

Refer to the Academic Integrity tab in Blackboard or academicintegrity.curtin.edu.au for more information, including student guidelines for avoiding plagiarism.

Information and Communications Technology (ICT) Expectations

Curtin students are expected to have reliable internet access in order to connect to OASIS email and learning systems such as Blackboard and Library Services.

You may also require a computer or mobile device for preparing and submitting your work.

For general ICT assistance, in the first instance please contact OASIS Student Support: oasisapps.curtin.edu.au/help/general/support.cfm

For specific assistance with any of the items listed below, please contact The Learning Centre: life.curtin.edu.au/learning-support/learning_centre.htm

- Using Blackboard, the I Drive and Back-Up files
- Introduction to PowerPoint, Word and Excel
Additional information

Referencing style:
Students should use the APA, 6th Vancouver or Chicago referencing style when preparing assignments. More information can be found at: http://libguides.library.curtin.edu.au/content.php?pid=141214
http://library.curtin.edu.au/study-and-research-tools/referencing.cfm

Guidelines for Submission:
The School of Public Health Guide to assignment presentation can be found on our website: http://healthsciences.curtin.edu.au/schools-and-departments/public-health/student-resources/
Assignments must be submitted electronically in a MS Word document through Blackboard and include a standard cover page from the Guide to Assignment Presentation: http://healthsciences.curtin.edu.au/schools-and-departments/public-health/student-resources/
Please include your name to help identify the assignment e.g. ARBassign1_SMITH (Student ID Number)

All assignments must be received by the designated times.

Assignment Marking:
Students should allow 15 working days turnaround for marking of written assignments.

Plagiarism Monitoring:
All assessments in this unit (with the exception of the Biostatistics e-Test) will be monitored for plagiarism using Turnitin plagiarism detection service (see http://turnitin.com). Students who do not want assignments retained in the Turnitin database, must lodge a special request prior to the submission date. For further advice see: http://academicintegrity.curtin.edu.au/studentsturnitin.html

Additional information:
If you have a query relating to administrative matters such as:

- Requests for deferral of study
- Difficulties with accessing online study materials
- Obtaining assessment results

Please contact either your Unit Coordinator or the School Student Support Office at the School of Public Health. Contact details are provided at the beginning of this unit outline.

To find out who are the Undergraduate Course Coordinators: http://healthsciences.curtin.edu.au/studying-health-sciences/undergraduate-courses/coordinators/#soph

Enrolment
It is your responsibility to ensure that your enrolment is correct - you can check your enrolment through the eStudent option on OASIS, where you can also print an Enrolment Advice.
Student Rights and Responsibilities

It is the responsibility of every student to be aware of all relevant legislation, policies and procedures relating to their rights and responsibilities as a student. These include:

- the Student Charter
- the University’s Guiding Ethical Principles
- the University’s policy and statements on plagiarism and academic integrity
- copyright principles and responsibilities
- the University’s policies on appropriate use of software and computer facilities

Information on all these things is available through the University’s “Student Rights and Responsibilities” website at: students.curtin.edu.au/rights.

Student Equity

There are a number of factors that might disadvantage some students from participating in their studies or assessments to the best of their ability, under standard conditions. These factors may include a disability or medical condition (e.g. mental illness, chronic illness, physical or sensory disability, learning disability), significant family responsibilities, pregnancy, religious practices, living in a remote location or another reason. If you believe you may be unfairly disadvantaged on these or other grounds please contact Student Equity at eesi@curtin.edu.au or go to http://eesj.curtin.edu.au/student_equity/index.cfm for more information.

You can also contact Counselling and Disability services: http://www.disability.curtin.edu.au or the Multi-faith services: http://life.curtin.edu.au/health-and-wellbeing/about_multifaith_services.htm for further information.

It is important to note that the staff of the university may not be able to meet your needs if they are not informed of your individual circumstances so please get in touch with the appropriate service if you require assistance. For general wellbeing concerns or advice please contact Curtin's Student Wellbeing Advisory Service at: http://life.curtin.edu.au/health-and-wellbeing/student_wellbeing_service.htm

Recent unit changes

Students are encouraged to provide unit feedback through eVALUate, Curtin’s online student feedback system. For more information about eVALUate, please refer to evaluate.curtin.edu.au/info/.

To view previous student feedback about this unit, search for the Unit Summary Report at https://evaluate.curtin.edu.au/student/unit_search.cfm. See https://evaluate.curtin.edu.au/info/dates.cfm to find out when you can eVALUate this unit.

Recent changes to this unit include:

Improvements made to PUBH3001 based on student eVALUate feedback:

- We introduced 3 workshops on basic numeracy skills which will run from Week 1-3 of Semester. These workshops will cover basic mathematics and basic SPSS.
- Made it easier for students to purchase SPSS software.
- Introduced the use of SPARKPLUS for computer based peer evaluation amongst students. This makes peer evaluation easier.
- Biostatistics computer labs will now include conceptual and application problem solving.

We welcome your feedback to continue to improve this unit. Later, during this Semester you will be encouraged to complete the eVALUate survey.
Program calendar

Semester 1 2016 Program Calendar: If you have a printed copy of this document, you may like to tear off this final page and keep the Study Calendar handy as you work through the unit.

Biostatistics Component: Semester 1, 2016 Lecture and Computing Laboratory Schedule (2 hours Lecture + 2 Computer Labs per week)

Biostatistics program calendar:

<table>
<thead>
<tr>
<th>Week</th>
<th>Begin Date</th>
<th>Lecture Mondays (8.00am-10.00am)</th>
<th>Pre-readings</th>
<th>Computer Labs</th>
<th>Assessment Due</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>Orientation Week</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1.</td>
<td>29 February</td>
<td>Descriptive Statistics,</td>
<td>Introduction to SPSS, Data entry, description of variables, descriptive statistics and testing for Normality</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Variables and distributions,</td>
<td></td>
<td></td>
<td></td>
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<tr>
<td></td>
<td></td>
<td>Normal distribution</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2.</td>
<td>7 March</td>
<td>Statistical Inference,</td>
<td>Using SPSS for Statistical Inference, Analysis of one-sample and paired sample t-tests, Confidence Interval using SPSS</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Hypothesis testing, One sample and paired samples t-test, Confidence Intervals</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3.</td>
<td>14 March</td>
<td>Two samples t-test, Confidence Intervals, tests for proportions</td>
<td>Two samples t tests and Confidence Intervals in SPSS</td>
<td></td>
<td></td>
</tr>
<tr>
<td>4.</td>
<td>21 March</td>
<td>One way Analysis of Variance (ANOVA), Scatterplots, Correlation</td>
<td>Using SPSS to do one way Analysis of Variance, Scatterplots and Correlation analysis</td>
<td></td>
<td></td>
</tr>
<tr>
<td>5.</td>
<td>28 March</td>
<td>Tuition Free Week</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>6.</td>
<td>4 April</td>
<td>Cross Tabulations, Chi Squared test, Fisher’s Exact test</td>
<td>Cross-tabulation, Chi-Squared test, Fisher’s exact test</td>
<td></td>
<td></td>
</tr>
<tr>
<td>7.</td>
<td>11 April</td>
<td>Revision</td>
<td>Biostatistics eTest/revision computer lab with Unit Coordinator</td>
<td>e-Test</td>
<td></td>
</tr>
<tr>
<td>8.</td>
<td>18 April</td>
<td></td>
<td>Tuition Free Week</td>
<td></td>
<td></td>
</tr>
<tr>
<td>9.</td>
<td>25 April</td>
<td>No Biostatistics Lecture</td>
<td>No computing lab</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
### Research Component: Semester 1 2016 Lecture and Tutorial Schedule

(2 hours Lecture + 2 hours Research Tutorial per week)

#### Research program calendar:

<table>
<thead>
<tr>
<th>Week</th>
<th>Begin Date</th>
<th>Lecture Mondays (8.00am-10.00am)</th>
<th>Pre-readings</th>
<th>Research Tutorial</th>
<th>Assessment Due</th>
</tr>
</thead>
<tbody>
<tr>
<td>Orientation</td>
<td>22 February</td>
<td></td>
<td></td>
<td></td>
<td>Orientation Week</td>
</tr>
<tr>
<td>1.</td>
<td>29 February</td>
<td>No Research Lecture</td>
<td></td>
<td>No Research Tutorial</td>
<td></td>
</tr>
<tr>
<td>2.</td>
<td>7 March</td>
<td>No Research Lecture</td>
<td></td>
<td>No Research Tutorial</td>
<td></td>
</tr>
<tr>
<td>3.</td>
<td>14 March</td>
<td>No Research Lecture</td>
<td></td>
<td>No Research Tutorial</td>
<td></td>
</tr>
<tr>
<td>4.</td>
<td>21 March</td>
<td>No Research Lecture</td>
<td></td>
<td>No Research Tutorial</td>
<td></td>
</tr>
<tr>
<td>5.</td>
<td>28 March</td>
<td></td>
<td></td>
<td></td>
<td>Tuition Free Week</td>
</tr>
<tr>
<td>6.</td>
<td>4 April</td>
<td>No Research Lecture</td>
<td></td>
<td>No Research Tutorial</td>
<td></td>
</tr>
<tr>
<td>7.</td>
<td>11 April</td>
<td>No Research Lecture</td>
<td></td>
<td>No Research Tutorial</td>
<td></td>
</tr>
<tr>
<td>8.</td>
<td>18 April</td>
<td></td>
<td></td>
<td></td>
<td>Tuition Free Week</td>
</tr>
</tbody>
</table>

#### 10. 2 May
- No Biostatistics Lecture
- No computing lab

#### 11. 9 May
- No Biostatistics Lecture
- No computing lab

#### 12. 16 May
- No Biostatistics Lecture
- No computing lab

#### 13. 23 May
- No Biostatistics Lecture
- No computing lab

#### 14. 30 May
- Revision lecture on Biostatistics
- No computing lab

#### 15. 6 June
- Study Week

#### 16. 13 June
- Examinations

#### 17. 20 June
- Examinations

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The only authoritative version of this Unit Outline is to be found online in OASIS.
<table>
<thead>
<tr>
<th></th>
<th>Date</th>
<th>Lecture/Activity</th>
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</thead>
<tbody>
<tr>
<td>9</td>
<td>25 Apr</td>
<td>Research Lecture 1 (Introduction to Applied Research; How to critique a research paper)</td>
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<tr>
<td></td>
<td></td>
<td>Research Tutorial 1: (Introduction to discipline specific applied research; Tutorial activity – allocation of groups; critiquing a discipline specific research paper)</td>
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<tr>
<td>10</td>
<td>2 May</td>
<td>Research Lecture 2- (how to critique lit review, methods and analysis section of a research paper)</td>
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<tr>
<td></td>
<td></td>
<td>Research Tutorial 2:- (How to critique literature review, methods and analysis of discipline specific research paper)</td>
</tr>
<tr>
<td>11</td>
<td>9 May</td>
<td>Research lecture 3 (Introduction to research proposal writing); gathering data for experimental and observational studies- sampling.</td>
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<tr>
<td></td>
<td></td>
<td>Tutorial 3: Introduction to discipline specific research proposal writing; topic selection</td>
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<tr>
<td>12</td>
<td>16 May</td>
<td>Research lecture 4: (Writing a research proposal, ethics)</td>
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<tr>
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<td></td>
<td>Research Tutorial 4: SPARKPLUS and writing discipline specific research proposal</td>
</tr>
<tr>
<td>13</td>
<td>23 May</td>
<td>No research Lecture: Writing discipline specific research proposals in groups</td>
</tr>
<tr>
<td></td>
<td></td>
<td>No research Tutorial (writing discipline specific research proposals)</td>
</tr>
<tr>
<td>14</td>
<td>30 May</td>
<td>Revision Lecture on Biostatistics</td>
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