

311390 Laboratory Medicine Honours Research 431

Semester One, 2012

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| Unit study package number: | 311390 (v.1) |
| Mode of study | Internal |
| Tuition pattern summary: | 10 hrs/week individual research |
| Credit value | 50 |
| Pre-requisite | Laboratory Medicine Honours Research 332 |
| Co-requisite units | Nil |
| Anti-requisite units: | Nil |
| Result type: | Grade and Mark |

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| | Phone: | +61 8 9266 3358 |
| | Email: | M.Bennet-Chambers@curtin.edu.au |
| | Building : Room | 308 : 206 |
| | Consultation times: | Any time office door is open. |

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| Administrative contact: | Name: | Mrs Janette McLeod |
| | Phone: | (08) 9266 7374 |
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| | Building : Room | Biomedical Sciences Building 308.122 |

Learning Management System: FLECS - Blackboard (oasis.curtin.edu.au)

Please read this outline fully before commencing your study in this unit.

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AIMS

Honours provides the student with skills relevant to a career in scientific research. The major emphasis is upon the research project, which will develop the student's ability to perform independent research, to identify and solve problems, to research and utilise the scientific literature and to communicate effectively in either a verbal or written context. The program should be considered as an apprenticeship, which prepares the student for further studies for a higher research degree.







SYLLABUS




Continuation of ongoing research project work

UNIT LEARNING OUTCOMES

| On successful completion of this unit students can: | Graduate Attributes addressed: |
|--|---|
| 1. Complete research relevant to a chosen project |   |
| 2. Integrate research results in a manner that answers the 'Research Question'. |   |
| 3. Produce a written research diary that reflects good research laboratory practice. |   |
| 4. Must have maintained good record-keeping skills in the laboratory book to a recognised standard |   |
| 5. Demonstrated good laboratory practices during research project |   |
| 6. Demonstrate the ability to apply skills acquired in their course to the project work for the chosen research topic |   |
| 7. Demonstrate adequate problem solving and time management skills to have completed research safely within required timeframe |   |
| 8. Present scientific data collected from research thus far as oral presentation. |   |

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) |

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|  <p>International perspective (value the perspectives of others)</p> |  <p>Cultural understanding (value the perspectives of others)</p> |  <p>Professional skills (work independently and as a team) (plan own work)</p> |
| <p>Find out more about Curtin's Graduate attributes at the Office of Teaching & Learning website: otl.curtin.edu.au</p> | | |

REQUIREMENTS TO COMPLETE THE COURSE

Learning Activities

Research

Research is an aspect of Science that often results in new knowledge. Science is a way of observing and understanding the world. This semester you will complete your research and answered your research question. The 'experiments' you undertook provided a means of answering your question. You will have to produce a well maintained and accurate laboratory workbook that reflects the research you have undertaken and present a seminar of your preliminary findings and analysis.

Dress Requirements: closed shoes must be worn in all laboratories & laboratory coats are essential.

Learning Resources

Essential Texts

You will need to purchase the following textbook in order to complete this unit:

1. **Knisely, Karin (2009).** Student Handbook for Writing Biology, 3th edition, Sinauer Associates, Inc. (available from University Bookshop)

Recommended Texts

You do not have to purchase the following textbooks but you may like to refer to them.












1. Allen, P. & Bennett, K. (2008) SPSS for the health and behavioural sciences. 2nd ed. Melbourne: Thomson.
2. Zar, J. H. 2007. *Biostatistical Analysis*. 5th ed. New Jersey: Prentice-Hall.

Online Resources

1. **FLECS-Blackboard** –This will provide you with Lecture/Tutorial guidelines. This material will only be accessible to students enrolled in the unit.

<http://lms.curtin.edu.au>

Assessment Schedule

| Task | Value (%) | Date due | Unit Learning Outcome(s) assessed |
|--------------------------------|-----------|----------------------------|---|
| Research Diary/Laboratory Book | 50% | 25 th May, 2012 |      |
| Preliminary Findings Seminar | 40% | 28 th May, 2012 |   |
| Laboratory | 10% | 25 th May, 2012 |     |

Detailed information on assessment tasks

Research Diary/Laboratory Book (50%)

You will be given a laboratory book at the start of your research. This is a record of all your work in the laboratory and will be assessed according to set guidelines that include neatness, accuracy, and completeness of results. This must be signed off weekly by your supervisor. The laboratory book should be submitted to the Honours Course Co-ordinator by **Friday 25th May, 2012**.

Preliminary Findings Seminar (40%)

The Preliminary Findings Seminar (presented on either May 28th, 2012) will be of 15 minutes' duration followed by 10 minutes for questions. This seminar is to present preliminary finding of your research and enables you to get feedback before writing the research paper.

Laboratory (10%)

This component is your supervisor's assessment of your conduct within the laboratory component of the course. This includes your technical ability, problem solving skills, perseverance and technical suitability for research. This mark should be submitted to the Honours Course Co-ordinator by **Friday 25th May, 2012**.

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 consistently evaluated by assessors. Minimum standards for the moderation of assessment are described in the Assessment Manual, available from policies.curtin.edu.au/policies/teachingandlearning.cfm

Late penalties

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 which students are required to submit will have a due date and time specified on the Unit Outline.
2. Accepting late submission of assignments or other work will be determined by the unit coordinator or Head of School and will be specified on the Unit Outline.
3. If late submission of assignments or other work is not accepted, students will receive a penalty of 100% after the due date and time i.e. a zero mark for the late assessment.

4. If late submission of assignments or other work is accepted, students will be penalised by ten percent per working day for a late assessment submission (e.g. 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 assignment worth 20 will have two marks deducted per working day late. Hence if it was handed in three working days late and marked as 12/20, the student would receive 6/20. An assessment **more than seven working days overdue will not be marked**. Work submitted after this time (due date plus seven days) may result in a Fail - Incomplete (F-IN) grade being awarded for the unit.

Referencing style

Students should use the **Chicago** referencing style when preparing assessments. More information can be found on this style from the Library web site:

library.curtin.edu.au/research_and_information_skills/referencing

Pass Requirements

In order to complete this unit for full credit towards your degree, you must complete the assessments; the literature review, written research proposal, and seminar presentation. For details on the allocation of marks refer to page 6 of this outline.

Supplementary information

Enrolment and HECS:

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.

Supplementary Examinations

Honours students are advised that supplementary examination(s) are NOT awarded.

Deferred Assessment

Deferred assessments are awarded in response to medical or other extenuating circumstances. Students requiring deferral of any assessment should discuss the matter with the Honours Co-ordinator. Application for a deferred assessment should be lodged in writing with the Honours Co-ordinator together with any supporting documentation.

Technology

Computers will be available in or adjacent to the research labs operated within the School or in the external laboratories in which the project is undertaken. Computers in the Mac Lab (Building 308) represent an additional resource for student use.

Honours students need access to a computer in their own time (including evenings and weekends). It is essential, that you have access to a computer with an Internet connection. The School uses a large number of dual boot Macintosh computers. For ease of transfer of files between lab and home computers and for printing while retaining established document formats, it is recommended that your home computer uses an operating system and programs compatible with these Intel Macintosh computers.

It is essential that students identify appropriate storage for their computer files and to develop a disciplined approach to backing up files on a regular basis.

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.

Your responsibilities

Research conduct

This project is to be carried out individually. You may require help from your supervisor and lab technicians in order to set up experiments, properly use equipment and data collection. However, the analysis, writing and presentation of the research report are your sole responsibility.

Your research supervisor will help you plan your research. You should talk/email them regularly according to an agreed timetable. You should seek any support you need from technical staff well in advance. If your project requires contact with students or staff of the university or with the general public you must behave in a professional manner and always receive informed consent from all subjects for their involvement.

Ethical Issues

As a biomedical researcher you MUST adhere to ethical regulation in aspects of direct research on human and animals, usage and manipulation of human and animal tissues and handling of human identifiable information and data in a confidential manner. Be aware that you have to check whether or not you need to clear your ethics requirement before you start your research. If you do you will be expected to prepare and lodge an ethics application to the right committee on the due date. Please discuss this matter with your supervisor and the unit coordinator.

Intellectual property


All teaching and research materials, resources and outcome are the property of Curtin University. Students are responsible for keeping all the above in a proper way with a self-explanatory record in your lab book. At the end of your work you MUST hand these materials to your supervisor and/or the unit coordinator.

Copyright

As a student of Curtin you must be familiar with the requirements of the University's Copyright Procedures. Failure to comply with the University's policies and procedures on Copyright and IT/IS use may include suspension or termination of enrolment, fines, withdrawal of privileges for use of the University's ICT facilities and services and, depending on what is copied, stored or communicated, may also render you liable to prosecution in the courts. Guidance is available to you at the following web page: <http://www.copyright.curtin.edu.au/>

Recent unit changes

We welcome feedback as one way to keep improving this unit. Students are encouraged to provide unit feedback through **eVALUate**, Curtin's online student feedback system (see evaluate.curtin.edu.au/info/). This is a new unit and your feedback is appreciated.

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|  | See evaluate.curtin.edu.au to find out when you can eVALUate this unit. |
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Academic problems

Students experiencing difficulties with the academic content of this unit should see the lecturer responsible for the subject matter presenting problems or the **Unit Coordinator Dr M Bennet-Chambers**, whose details appear on the front page of this unit outline.

Internet/FLECS-Blackboard access problems

Any problems associated with internet/FLECS-Blackboard access should be addressed to **Randy Strack** at: R.Strack@curtin.edu.au