



UNIVERSITY *of*
TASMANIA

School of Health Sciences

Faculty of Health

CXA101

INTRODUCTION TO MEDICAL LABORATORY SCIENCES

Semester 1, 2016

Unit Outline

Jane Pittaway

CONTACT DETAILS

Unit coordinator

Unit coordinator:	Jane Pittaway
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Email:	jane.pittaway@utas.edu.au
Phone:	6324 5495
Room location and number:	D015 (near the lower exit to Lecture Theatre 6)
Consultation hours:	appointment by email/phone

Other teaching staff

Dr Murray Adams	guest tutor, Course Coordinator BBiomedSc
Dr Jeff Beckett	tutor & lecturer
Ms Clare Tanton	tutor & technical officer
Ms Malena Hyde	tutor & technical officer
Dr Stan Flavel	tutor & senior technical officer
Mr Yik Chang Ho	tutor & PhD candidate

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WHAT IS THE UNIT ABOUT?

Unit description

This unit equips you with clinical laboratory skills and theoretical knowledge that links to other first year units and that underpins learning in future units within the Bachelor of Biomedical Science, Health Science and Exercise Science programs. At the end of this unit, you will have experienced a range of laboratory techniques and instruments and have a grounding in the theoretical principles on which these techniques and instruments are based.

The unit also provides the opportunity to develop and practice your communication skills in written and oral contexts, face to face and on-line. A workshop on cultural awareness, a faculty-wide initiative, aims to enhance your cross-cultural communication skills and understanding, to help you interact confidently and sensitively with your peers and to prepare you for the multi-cultural environs of post-university life.

Intended Learning Outcomes

On completion of this unit, you will be able to:

1. Demonstrate and apply knowledge of:
 - a. foundational techniques of medical laboratory analysis and the principles of operation of some laboratory equipment
 - b. the physiology of human blood and the interpretation of analytical results in a medical laboratory context
 - c. statistical and quality assurance principles used in medical laboratory analysis
 - d. occupational health and safety theory and practice in a medical laboratory setting
 - e. the use of University of Tasmania library resources
2. Display developing professional and intercultural communication skills by:
 - a. communicating scientific information in writing
 - b. applying cross cultural awareness and communication in writing

Graduate Quality Statement

Successful completion of this unit supports your development of course learning outcomes, which describe what a graduate of a course knows, understands and is able to do. Course learning outcomes are available from the Course Coordinator.

Course learning outcomes are developed with reference to national discipline standards, Australian Qualifications Framework (AQF), any professional accreditation requirements and the University of Tasmania's Graduate Quality Statement.

The University of Tasmania experience unlocks the potential of individuals. Our graduates are equipped and inspired to shape and respond to the opportunities and challenges of the future as accomplished communicators, highly regarded professionals and culturally competent citizens in local, national, and global society. University of Tasmania graduates acquire subject and multidisciplinary knowledge and skills and develop creative and critical literacies and skills of inquiry. Our graduates recognise and critically evaluate issues of social responsibility, ethical conduct and sustainability. Through respect for diversity and by working in individual and collaborative ways, our graduates reflect the values of the University of Tasmania.

Alterations to the unit as a result of student feedback

Introduction of the on-line short answer questions (Assessment Task 3) increases the amount of formative (non-assessed) feedback students receive during the semester.

Splitting the original two-hour prac exam (held in week 13) into a one-hour prac exam at the end of semester and a semester-long minimum standards practical skills checklist (Assessment Tasks 2 and 7), allows for students and staff to better monitor student practical performance, prior to the final exam.

Prior knowledge &/or skills

Students enrolling in this unit are assumed to already be competent in the use of computers and Information and Communications Technologies (ICT), including creating and saving documents, logging-on to the internet and using on-line applications - particularly email, attaching documents to emails, downloading and uploading documents.

You need to possess a calculator with scientific functionality and you must be able to use the calculator correctly – particularly the statistical functions, before attending the tutorial and practical sessions.

HOW WILL I BE ASSESSED?

Assessment schedule

Assessment task	Date due	Percent weighting	Links to Intended Learning Outcomes (ILOs)
Assessment Task 1: Library Assignment	Tuesday 15 th March (week 4)	10	1, 2
Assessment Task 2: Practical Assessment Part A Minimum Standards Practical Skills Checklist	Friday 27 th May (Final day of semester)	10	1
Assessment Task 3: On-line Short Answer Submissions x 5	Friday, one week after release	25	1, 2
Assessment Task 4: Theory Assessment Part A Mid-Semester Theory Test	Friday 8 th April (Week 6)	20	1, 2
Assessment Task 5: Global Perspectives Program Quiz	Friday (week 8)	5	2
Assessment Task 6: Theory Assessment Part B End-Semester Theory Test	Friday 27 th May (week 13)	20	1, 2
Assessment Task 7: Practical Assessment Part B End-Semester Prac Exam	Friday 27 th May (week 13)	10	1, 2

*** Please note that the penalty for non-submission of Item 2 assessments may increase the examination weighting. Check under the Penalties heading for more details.

Assessment details

Assessment task 1: Library Assignment

Task description	<p>Written report based on results from a search of the library resources, including an on-line database on a given topic. Guidelines are provided in the associated tutorial.</p> <p>Please direct any questions about this submission to the Library Assignment Discussion Board (Under Questions to Lecturer & Feedback) on MyLO.</p>
Assessment criteria	<p>Guidelines are given in the related tutorial & are available on the MyLO site. The criterion referenced assessment (CRA) table is on the following page.</p>
Links to unit's ILOs	<p>This assessment contributes to you achieving learning outcomes 1 & 2</p>
Task length	<p>2 hours in an e-lab (details in tutorial), followed by individual student research and report writing</p>
Release date & due date	<p>The library assignment (hard copy only) is handed out at the beginning of the library session in week 1.</p> <p><i>The completed assignment is due on Tuesday 15th March 2016 at 5.00pm.</i></p> <p>Please submit in hard copy via the designated assignment drop-box, located under the stairs in Building C (Health Sciences Building).</p> <p>Your submission must include the completed Assignment Cover Sheet. Electronic copies are available for download in the Assessment Resources folder on MyLO.</p>
Feedback	<p>Feedback is released on completion of the assignment marking</p> <ul style="list-style-type: none"> • General feedback: available electronically via MyLO • Individual feedback: attached to each assignment on return • Individual results are published in My Grades on MyLO
Late & missed submission	<p><i>Contact Susan Salter as soon as possible, if you are unable to submit this assessment on the due date, to discuss your options.</i></p> <p>See the 'Penalties' section of this document for details regarding missed submissions or late submissions without documented reasons.</p>

CRA Table 1. Library Assignment – your library assignment will be assessed against the following criteria

Criteria	High Distinction (>80%)	Distinction (>70%)	Credit (>60%)	Pass (>50%)	Fail (<50%)
	In your submission, you:	In your submission, you:	In your submission, you:	In your submission, you:	In your submission, you:
1. Demonstrate the following tasks: * Using a reference source * Finding a book * Evaluating information from the web * Using library databases Weighting 80%	<ul style="list-style-type: none"> demonstrated correctly and thoroughly all the tasks 	<ul style="list-style-type: none"> demonstrated thoroughly all the tasks with <i>minor</i>* errors 	<ul style="list-style-type: none"> demonstrated <i>most of</i>* the tasks 	<ul style="list-style-type: none"> demonstrated <i>some</i>* knowledge of the tasks 	<ul style="list-style-type: none"> attempted to complete the tasks
2. Communicate the use of the above resources in a written report by: * Submitting a completed report followed the assignment guidelines * Using writing conventions (grammar, spelling, scientific terminology) Weighting 10%	<ul style="list-style-type: none"> adhered to the specified report structure and met <i>all</i> submission guidelines completely adhered to writing conventions 	<ul style="list-style-type: none"> adhered to the specified report structure and met the submission guidelines with <i>minor</i>* errors adhered with <i>minor</i>* errors to writing conventions 	<ul style="list-style-type: none"> <i>mostly</i>* adhered to the specified report structure and met <i>most of</i>* the submission guidelines <i>mostly</i>* adhered to writing conventions 	<ul style="list-style-type: none"> <i>did not</i> adhere to the specified report structure or meet <i>most of</i>* submission guidelines adhered to <i>some</i>* writing conventions 	<ul style="list-style-type: none"> met <i>few</i>* or <i>none</i> of the specified report structures or submission guidelines adhered to <i>few</i>* or <i>none</i> of the writing conventions
3. Demonstrate application of the use of Harvard referencing * Required number of references * Adhering to Harvard conventions Weighting 10%	<ul style="list-style-type: none"> referenced all required sources adhered to the Harvard style of referencing with <i>minor</i>* errors 	<ul style="list-style-type: none"> referenced all required sources <i>mostly</i>* adhered to the Harvard style of referencing 	<ul style="list-style-type: none"> referenced all required sources <i>mostly</i>* adhered to the Harvard style of referencing 	<ul style="list-style-type: none"> referenced all required sources adhered to <i>some</i>* of the Harvard style of referencing 	<ul style="list-style-type: none"> did not reference all required sources used <i>few</i>* or <i>none</i> of the Harvard conventions
* <i>minor</i> = greater than 75% correct; <i>mostly/most of</i> = greater than 60% correct; <i>some</i> = approx. 50% correct; <i>few or none</i> = less than 25% correct					

Assessment task 2: Minimum Standards Practical Skills Checklist

Task description	<p>The checklist itemises the points of technique you need to demonstrate correctly, to attain the minimum standard of competency of each of the following skills: working safely in a medical laboratory; correct use of micropipettes; correctly operating a spectrophotometer; correct use and operation of a light microscope; correct calculation and manipulation of various formulae and equations.</p> <p>Please direct any questions about these submissions to the Minimum Standards Practical Skills Checklist Discussion Board (Under Questions to Lecturer & Feedback) on MyLO.</p>
Assessment criteria	Your supervisor will observe you during prac sessions and sign off each attained point of technique. You may need to complete some skills correctly on several occasions to gain the minimum standard of competency, as indicated on the checklist.
Links to unit's ILOs	This assessment contributes to you achieving learning outcome 1
Task length	Ongoing throughout semester
Release date & due date	The checklist is distributed in the week 2 practical session and you are expected to bring it with you to each weekly prac session. The completed checklist is submitted to the supervisor at the prac exam in week 13.
Feedback	You are provided with constant feedback on your skills levels as each point of technique is signed off by a supervisor
Late & missed submission	It is up to you to ensure the checklist is completed before the prac exam in week 13. If you have concerns about your ability to complete the checklist, contact the unit coordinator BEFORE WEEK 12 to discuss your options.

Assessment task 3: On-Line Short Answer Submissions x 5

Task description	<p>You are required to submit five short answer assignments during semester. Each assignment consists of up to five questions, which relate to the practical sessions held in the week of assignment release.</p> <p>Prepare your answers in MS Word (or similar) format and save to your computer or memory device. Submit this document via the MyLO drop box as a PDF (or similar) attachment. Your submissions will be checked for originality using TURNITIN (the University's anti-plagiarism software), so make sure you acknowledge any references you make use of.</p> <ul style="list-style-type: none"> • Follow the Harvard referencing style for in-text citations and reference lists <p>THIS IS AN INDIVIDUAL ASSESSMENT ITEM, GROUP WORK IS NOT PERMITTED – you must include an electronic copy of the assignment cover sheet in each submission.</p> <p>Please direct any questions about these submissions to the On-line Short Answer Submissions Discussion Board (Under Questions to Lecturer & Feedback) on MyLO.</p>
Assessment criteria	Submission of all five assignments contributes 5% to the unit mark.

	<p>Two of the five submissions are marked and contribute up to 10% each to the unit mark. You don't know beforehand which two will be chosen, so submit all five.</p> <p>Guidelines are given with each assignment.</p>
Links to unit's ILOs	This assessment contributes to you achieving learning outcomes 1, 2
Task length	Questions typically require numerical answers, one or two sentences or very occasionally case study answers, 200 words maximum.
Release date & due date	<p>Each short answer assignment will be available from 5pm Friday of the week it is released.</p> <p>Your answers must be submitted electronically via the MyLO dropbox by 9.00am Friday of the following week. Further details will be provided with the release of each short answer assignment.</p>
Feedback	<p>This assessment task provides both summative and formative feedback:</p> <ul style="list-style-type: none"> • Marks are allocated toward the final aggregate mark for the unit (summative). Individual marks are published in My Grades on MyLO • Sample answers are released via each dropbox folder, at 5pm on the Wednesday after the submission deadline for you to compare to your answer. This assists you with monitoring your own learning and improving your performance (formative feedback).
Late & missed submission	<p>Each MyLO Dropbox folder will remain open until 5 pm Sunday of the week following the due date. Assignments submitted after the 5pm Friday due date, but before the 5 pm Sunday end date, should be accompanied by supporting documentation (e.g. medical certificate) in order to be considered eligible for grading.</p> <p>Contact the unit coordinator as soon as possible, if you are unable to submit this assessment by the due date, to discuss your options.</p> <p>See the 'Penalties' section of this document for details regarding missed submissions or late submissions without documented reasons.</p>

Assessment task 4: Mid-Semester Theory Test

Task description	<p>This is a closed book, paper-based test, comprising a mixture of multiple choice and short answer questions and calculations, related to content presented in the lectures tutorials and practical sessions in weeks 2-5.</p> <p>You need to bring your non-programmable calculator to use in the test.</p> <p>Please direct any questions about these submissions to the Theory Test & Prac Exam Discussion Board (Under Questions to Lecturer & Feedback) on MyLO.</p>
Assessment criteria	Answers are assessed with reference to material covered during lectures, practicals and tutorials presented in weeks 2-5 of the unit
Links to unit's ILOs	This assessment contributes to you achieving learning outcomes 1, 2
Task length	One (1) hour

Release date & due date	Friday 8 th April (week 6)
Feedback	General feedback will be available via MyLO after the test papers have been marked. Individual marks are published in My Grades on MyLO.
Late & missed submission	Contact the unit coordinator as soon as possible to discuss your options, if you are unable to attempt this assessment item on the scheduled date.

Assessment task 5: Global Perspectives Program Quiz

Task description	<p>You complete a mix of multiple choice questions and short answer questions based on the content delivered in and referred to, in the four plenaries and tutorials – so watch and read the additional material as directed, available in the GPP folder on MyLO.</p> <p>Please direct any questions about these submissions to the Global Perspectives Program Discussion Board (Under Questions to Lecturer & Feedback) on MyLO.</p>
Assessment criteria	Answers are assessed with reference to material presented during the GPP
Links to unit's ILOs	This assessment contributes to you achieving learning outcome 2
Task length	30 minutes
Release date & due date	Friday 22 nd April (week 8), after the fourth GPP tutorial
Feedback	Individual marks are published in My Grades on MyLO after all papers have been marked.
Late & missed submission	Contact the unit coordinator as soon as possible to discuss your options, if you are unable to attempt this assessment item on the scheduled date.

Assessment task 6: End-Semester Theory Test

Task description	<p>This is a closed book, paper-based test, comprising a mixture of multiple choice and short answer questions and calculations, related to content presented in the lectures tutorials and practical sessions in weeks 9-12.</p> <p>You need to bring your non-programmable calculator to use in the test.</p> <p>Please direct any questions about these submissions to the Theory Test & Prac Exam Discussion Board (Under Questions to Lecturer & Feedback) on MyLO.</p>
Assessment criteria	Your answers are assessed with reference to material covered in lectures, practical & tutorials in weeks 9-12.
Links to unit's ILOs	This assessment contributes to you achieving learning outcomes 1, 2
Task length	One (1) hour

Release date & due date	Friday 27 th May (week 13)
Feedback	There is no separate feedback for this assessment; your mark is incorporated into your final result, released according to the university timetable. Contact the unit coordinator if you have a legitimate reason for knowing your second theory test result.
Late & missed submission	Contact the unit coordinator as soon as possible to discuss your options, if you are unable to attempt this assessment item on the scheduled date.

Assessment task 7: End semester prac exam

Task description	<p>The exam assesses the application of safe work practise and techniques and the interpretation of results obtained, studied during the semester.</p> <p>Your Minimum Standards Competency Checklist must be completed before you attempt the prac exam.</p> <p>Please direct any questions about these submissions to the Theory Test & Prac Exam Discussion Board (Under Questions to Lecturer & Feedback) on MyLO.</p>
Assessment criteria	<p>The exam is marked on the accuracy of the results obtained and their interpretation and assessed according to material covered during the unit.</p> <p>You must pass the final prac exam to pass the unit</p>
Links to unit's ILOs	This assessment contributes to you achieving learning outcomes 1, 2
Task length	One (1) hour
Release date & due date	Friday 27 th May (week 13)
Feedback	There is no separate feedback for this assessment; your mark is incorporated into your final result, released according to the university timetable. Contact the unit coordinator if you have a legitimate reason for knowing your prac exam result
Late & missed submission	Contact the unit coordinator as soon as possible, if you are unable to attempt this assessment item on the scheduled date, to discuss your options.

How your final result is determined.

To pass this unit you must attend ALL practical sessions unless absence has been explained to the satisfaction of the unit coordinator and submit all assessment tasks, completed to the satisfaction of the unit coordinator. The final mark will be an aggregate of all assessment marks, ***provided that the final practical exam is passed.***

Final grades are awarded based on University guidelines. The co-ordinator reserves the right to alter marks if deemed necessary, so do not assume that the raw score for an assessment item is your final mark.

Submission of assignments

Submit assignments by the due date. All printed work must be submitted by 4:00 pm on the due date in the assignment drop-box, located in the foyer of the School of Health Sciences building (building C).

There is a series of drop-boxes on the MyLO site for submission of the on-line short answer assessments, due by 9.00am one week after the relevant prac session. Please report any issues with submissions to the unit co-ordinator immediately. For details on submission dates refer to the assessment details on page 8.

Please ensure that all assignment submissions are accompanied by an assignment cover sheet, in either hard copy or electronically. Download a copy of the cover sheet from the Assignment Resources folder on MyLO

Requests for extensions

Refer to the SHS Assessment Guidelines for detailed instructions and advice relating to how to resolve any issues concerning assessment.

<http://www.utas.edu.au/health/students/resources/policies-procedures-and-forms>

Penalties

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<http://www.utas.edu.au/health/students/resources/policies-procedures-and-forms>

Failure to complete an online assessment by the close of release dates may result in late penalties at the discretion of the unit co-ordinator.

For Assessment Task 3: Submissions made within individually varied dates/times, as authorised by the Unit Coordinator, will be eligible for grading.

If you have failed to submit the short answer submission selected for grading (late submission without supporting documentation or non-submission), the assessment weighting for that assessment will be transferred to the theory tests. So if you fail to submit one on-line short answer assessments, 10% is transferred to the theory tests, making them worth 50% of the unit mark rather than 40%. If you fail to submit both on-line short answer assessments, 20% is transferred to the theory tests, making them worth 60% of the total unit mark. Additionally, you forfeit 5% towards your final unit mark by not submitting all five on-line short answer assessments.

Review of results and appeals

Refer to the SHS Assessment Guidelines for detailed instructions and advice relating to how to resolve any issues concerning internal assessment.

<http://www.utas.edu.au/health/students/resources/policies-procedures-and-forms>

Refer to the University website on policy and procedures regarding a review of assessment or an appeal. <http://www.utas.edu.au/registrar/student-complaints/faqs>

Academic referencing

In your written work you will need to support your ideas by referring to scholarly literature, works of art and/or inventions. It is important that you understand how to correctly refer to the work of others, and how to maintain academic integrity.

Failure to appropriately acknowledge the ideas of others constitutes academic dishonesty (plagiarism), a matter considered by the University of Tasmania as a serious offence.

The appropriate referencing style for this unit is the Harvard referencing style.

The [University library provides information on presentation of assignments, including referencing styles](#) and should be referred to when completing tasks in this unit.

Please read the following statement on plagiarism. Should you require clarification please see your unit coordinator or lecturer.

Plagiarism

Plagiarism is a form of cheating. It is taking and using someone else's thoughts, writings or inventions and representing them as your own; for example, using an author's words without putting them in quotation marks and citing the source, using an author's ideas without proper acknowledgment and citation, copying another student's work.

If you have any doubts about how to refer to the work of others in your assignments, please consult your lecturer or tutor for relevant referencing guidelines. You may also find the [Academic Honesty site on MyLO](#) of assistance.

The intentional copying of someone else's work as one's own is a serious offence punishable by penalties that may range from a fine or deduction/cancellation of marks and, in the most serious of cases, to exclusion from a unit, a course or the University.

The University and any persons authorised by the University may submit your assessable works to a plagiarism checking service, to obtain a report on possible instances of plagiarism. Assessable works may also be included in a reference database. It is a condition of this arrangement that the original author's permission is required before a work within the database can be viewed.

For further information on this statement and general referencing guidelines, see the [Plagiarism and Academic Integrity](#) page on the University web site or the [Academic Honesty site on MyLO](#).

Academic misconduct

Academic misconduct includes cheating, plagiarism, allowing another student to copy work for an assignment or an examination, and any other conduct by which a student:

- a. seeks to gain, for themselves or for any other person, any academic advantage or advancement to which they or that other person are not entitled; or
- b. improperly disadvantages any other student.

Students engaging in any form of academic misconduct may be dealt with under the Ordinance of Student Discipline, and this can include imposition of penalties that range from a deduction/cancellation of marks to exclusion from a unit or the University. Details of penalties that can be imposed are available in [Ordinance 9: Student Discipline](#) – Part 3 Academic Misconduct.

Academic Integrity & Experimental Sciences

In addition to plagiarism, responsible and ethical conduct of research requires that all researchers have confidence in research undertaken and reported to peers. The falsification and fabrication of data are inconsistent with academic integrity.

Falsification of data refers to the selective modification of data collected in the conduct of experimental research, or the misrepresentation of processes or uncertainty during statistical analysis of the data. Falsification may also involve the selective omission, deletion, or suppression of data inconsistent with the research objectives.

Fabrication of data. This refers to the creation of records of research for which there is no basis in fact, with the intent to mislead or deceive. Please note that whilst 'copying a colleague's assignment and using it as your own' is one form of plagiarism, there are numerous other forms. These include, cutting and pasting from articles found on the world wide web or from websites, or copying verbatim from articles/web pages (or paraphrasing same) without due reference to or indicating (by italics and/or indenting text) the fact that you are directly quoting another person's work. Again, **when in doubt consult your unit coordinator, lecturer or tutor.**

Self-copying/Re-submission of assessment. It is inappropriate to copy your own work, in part or in whole, and submit it for assessment in more than one Unit of study at this, or another, University. Unless otherwise approved, all assessment tasks undertaken in a unit must be done within the enrolment period.

Group work. It is important that all group members make appropriate contributions to the required task. Copying from others, or contributing less, little or nothing to a group assignment and then claiming an equal share of the marks is not appropriate. When working as a member of a group or team, it is important to keep records of your own work. Even though you may have group discussions and work together – always write your own notes, and keep records what of you have personally contributed to any group assessment product/s.

Collusion. Protect your academic work. The intentional sharing of your work potentially allows others to copy your work and cheat and gain an academic advantage. **In these circumstances, both YOU and the person that copied your work may be subject to allegations of academic misconduct.**

You are not permitted to collude during any summative online assessments – you must submit your own work in all online and written assessment tasks that contribute to your final marks in the unit.

WHAT LEARNING OPPORTUNITIES ARE THERE?

MyLO

MyLO is the online learning environment at the University of Tasmania. This is the system that will host the online learning materials and activities for this unit, including lecture notes, tutorial notes and prac notes. The unit outline and additional resources are also available.

This unit is web dependant and you are required to access MyLO (on campus or off campus) in order to complete the on-line short answer assignments. You are required to check the MyLO site daily (Monday to Friday) for NEWS items, discussion board postings and new material.

Getting help with MyLO

It is important that you are able to access and use MyLO as part of your study in this unit. To find out more about the features and functions of MyLO, and to practice using them, visit the [Getting Started in MyLO unit](#).

For access to information about MyLO and a range of step-by-step guides in pdf, word and video format, visit the [MyLO Student Support page](#) on the University website.

If something is not working as it should, [contact the Service](#)

[Desk](#) (Service.Desk@utas.edu.au, phone 6226 1818), or [Request IT Help Online](#).

Course Specific Technical Assistance

If you are having trouble accessing course content and assignment drop boxes, contact your unit coordinator. The School of Health Sciences also employs a number of Educational Technologists who may be able to help you.

Email: SNM.Support@utas.edu.au

Resources

Required readings

There is no prescribed text for this unit. There are numerous, excellent, clinical texts available in the library and on-line, in the form of e-journals. Library catalogue codes for text books pertinent to the topics you will be investigating include:

RB 37- laboratory skills and tests

RB 40- clinical chemistry/biochemistry

RB 45- haematology – laboratory technique

RB 111- interpreting pathology tests

RB 145- microscopic haematology

RC 633-647.5 diseases of the blood, haematology

You are expected to make extensive use of the library resources in the study of this unit, the focus of the first assessment task. If you need assistance, ask a librarian (Ms Susan Bell Susan.Bell@utas.edu.au is the Liaison Librarian for School of Health Sciences' students).

Other resources

Resources in the form of lecture and tutorial notes, laboratory notes and review exercises are available via MyLO as required. You are strongly recommended to pre-read the lecture notes, tutorial and practical notes before attending the relevant sessions.

Equipment, materials, software, accounts

Computer hardware, software & digital media

If you are a student in any one of the courses offered by the School of Health Sciences you are able to use the Faculty of Health computer facilities which are located in Doo1 during times when it is not being used for tutorials. You will need a swipe card to access the room. Contact the School of Health Sciences Reception area for details.

You should also have access to the central computer facilities available in the library, cafeteria, student centre and learning hub areas. Computing resources on campus are limited.

Unit-specific software

For MyLO

To access MyLO from your own computer you will need suitable hardware and software. Check the resources at UConnect: <http://uconnect.utas.edu.au> for further information regarding hardware, software and browser set-up requirements.

Activities

Learning expectations

The University is committed to high standards of professional conduct in all activities, and holds its commitment and responsibilities to its students as being of paramount importance. Likewise, it holds expectations about the responsibilities students have as they pursue their studies within the special environment the University offers.

The University's Code of Conduct for Teaching and Learning states:

Students are expected to participate actively and positively in the teaching/learning environment. They must attend classes when and as required, strive to maintain steady progress within the subject or unit framework, comply with workload expectations, and submit required work on time.

Details of teaching arrangements

Please refer to the unit schedule at the end of this document for the topics covered in each week's learning module (lecture, tutorial, practical).

Lectures

Two 50-minute lectures are scheduled each Friday during Semester 1, 11.00 – 11.50 am and 12.00 – 12.50 pm in Lecture theatre 7. Recordings of lectures are available via the MyLO site a day or so after the lecture.

Tutorials

One 50-minute tutorial is scheduled each Friday during Semester 1, 1.00 – 1.50 pm in lecture Theatre 1.

Practical/laboratory sessions

One two-hour practical session each Friday during Semester 1, 2.00 – 4.00 pm in rooms C207, C219 and C220 in the School of Health Sciences building (Building C, NH.BA25).

Workshops/seminars

Global Perspectives Program: Lecture, tutorial and prac time in Weeks 6 and 7

The Global Perspectives Program aims to support you in developing cultural awareness for life-long learning and work in a global society. The program will assist you to:

- Identify AWARENESS of your own world-view in the context of other world-views
- Demonstrate a respectful ATTITUDE towards other cultures
- Demonstrate RECOGNITION and an acceptable INTERPRETATION of different cultural practices and world views
- COMMUNICATE effectively and appropriately in an intercultural context

The program is a faculty-wide initiative, rolled out to all first year students enrolled in undergraduate degrees offered by the faculty of Health, to encourage interaction within the diverse undergraduate cohort, in preparation for post-graduate life. The program, presented over two weeks (weeks 7 & 8), consists of four 50-minute plenary sessions, each followed by a companion 50-minute tutorial. Students complete a short, on-line 'pre-program' quiz (not assessed) in the days before the first plenary and a face-to face, paper-based, 30-minute quiz (assessed) directly after the fourth tutorial. The introductory lecture in week 1 contains more information.

Completion of the Global Perspective Program is compulsory.

Online activities

For information on accessing and using the MyLO Discussions tool, lecture recordings and the MyLO Drop Box tool, see the help resources at <http://www.utas.edu.au/mylo/student-support>

Specific attendance/performance requirements

Attendance at all practicals is compulsory unless you negotiate alternatives with the unit coordinator. For non-attendance, you must supply a medical or dental certificate, a statutory declaration or declaration witnessed by a Commissioner for Declarations.

You should actively participate and co-operate in lectures, tutorials and practicals. In practical sessions, you should conduct yourself in a safe and co-operative manner at all times and be prepared to work in a group environment.

Teaching and learning strategies

The university encourages a blended learning approach that extends beyond lecture/tutorial/prac notes and teaching spaces, beyond the virtual learning environment of MyLO, to on-campus spaces that enable you to engage with other

students and with other online resources. For example, study spaces and study pods within the library, dedicated computer laboratory access and wireless networking.

You are expected to take responsibility for your learning success in this and other units in your degree, which then translates into your post-graduate life. The university provides a number of programs and counsellors to support your learning. For further information, contact the Student Centre (telephone 6324 3999) or visit the eStudent Centre: <http://www.utas.edu.au/orientation/academic-success>

Work Health and Safety (WHS)

WHS information that is specific for students is available at:
<https://secure.utas.edu.au/work-health-safety/students-info>

Unit specific WHS information is available in the Work Health and Safety module on the Unit MyLO site.

Communication

Communication mechanism for students

The School of Health Sciences is committed to meeting students' needs as far as circumstances reasonably allow. The School of Health Sciences uses email as a primary communication tool - students are expected to check their UTAS email at least once a week to receive all communications.

Students should follow the three steps outlined below when concerns over their academic progress or personal issues that impact on study occur:

1. In the first instance, the Unit Coordinator is to be contacted.
2. Concerns that cannot be managed by the Unit Coordinator are normally referred to the Degree Coordinator and/or the Program Chair, Undergraduate Studies (Health Sciences).
3. Concerns that cannot be resolved through the first two steps will be referred to the Associate Head (Learning and Teaching) or the Head of School.

Student communication and Support Plan

The School of Health Sciences Student Communication and Support Plan (SCSP) provides a case management approach for the development of academic and pastoral support for students who have been identified as being at risk. The SCSP aims to assist students to succeed in their course of study by developing academic study skills and maintaining wellbeing. For international students identified as being at risk, development of an SCSP forms part of the ESOS legislation for monitoring student progression and implementing a support plan for these students. Students who are

identified as being academically at risk will be contacted and placed on a student communication and support plan.

Unit and Teaching feedback

The University of Tasmania, on a regular basis, evaluates its teaching and learning environment through eValue. You will receive an email requesting you to complete an online unit feedback form at the end of the semester for this unit. You may also receive an email requesting your feedback for specific teaching staff. Teaching staff typically evaluate their teaching according to their performance management requirements.

You are strongly encouraged to complete these online forms to enable the University of Tasmania to continue to improve its learning and teaching.

Further information and assistance

If you are experiencing difficulties with your studies or assignments, have personal or life-planning issues, disability or illness which may affect your course of study, you are advised to raise these with the unit coordinator in the first instance.

There is a range of University-wide support services available to you including [Student Learning Support](#), [Student Advisers](#), [Disability Services](#), and more which can be found on the [Student Support and Development](#) page of the University website.

The School of Health Science (Launceston) Student Advisor is Margaret Dorey. She is located in the Student Centre, email: [Margaret Dorey](mailto:Margaret.Dorey@utas.edu.au), phone: +61 3 6324 3105

Should you require assistance in accessing the [Library](#), [visit their website](#) for more information.

Unit schedule

WEEK NO.	BEGINNING MONDAY	LECTURE FRIDAY 11.00 – 12.30	TUTORIAL FRIDAY 1.00 – 2.00	PRACTICAL FRIDAY 2.00 – 4.00	ASSOCIATED ACTIVITIES
1	22/2/16	Introduction; Medical terminology	Library resources & searching Computing Laboratory Room G37 – Swanson Building		Library assignment
Module 1: Introduction to Clinical Biochemistry - measuring blood solute concentrations					
2	29/2/16	Introduction to Clinical Biochemistry; Fundamental concepts	Pipettes and pipetting; Precision & accuracy	Pipetting, precision & accuracy	Hand up Week 2 prac worksheets
3	7/3/16	Principles of spectrophotometry; Dilutions & concentrations	Dilutions & concentrations; Risk assessment	Determining λ_{max} ; dilutions & concentrations; risk assessment; pipetting & precision OLSAS 1 released	Hand up Week 3 prac worksheets
4	14/3/16	Principles of Analytical Spectrophotometry	Developing an analytical test	Determining analytical parameters OLSAS 2 released	<ul style="list-style-type: none"> • Library assignment due Tuesday 15th • OLSAS 1 due Friday 18th
5a	21/3/16 to 23/3/16				
Mid-semester break Thursday 24th March to Wednesday 30th March					
5b	31/3/16 to 1/4/16	Measurement of blood solute concentrations	Determination of serum albumin concentration Control samples	Determination of serum albumin concentration OLSAS 3 released	OLSAS 2 due Friday 1st April
6	4/4/15	Mid semester theory test: calculation of dilutions; risk assessment; manipulation of equations to estimate an unknown; reference intervals, controls & standards; terminology		Optional: skills for competency checklist	
Module 2: Global Perspectives Program – cross cultural interaction & communication					
7	11/4/15	GPP: sessions 1 & 2 plenary & tutorials			OLSAS 3 due Friday 15th April
8	18/4/15	GPP: sessions 3 & 4 plenary & tutorials			end of GPP quiz

Module 3: Introduction to Haematology - evaluating blood cells					
9	25/4/15	Introduction to Haematology; Haemoglobin (Hb)	Hb estimation; pipetting with whole blood;	Hb estimation: pipetting precision with whole blood; dilutions & concentrations OLSAS 4 released	Hand up week 9 prac sheets
10	2/5/15	Microscopy: qualitative analysis of blood cells; Medical terminology;	Microscopy – setting up a microscope; assessing blood cell morphology using medical terminology	Making & staining a blood film; setting up a microscope; assessing blood cell morphology; whole blood pipetting precision	OLSAS 4 due Friday 6th May
11	9/5/15	Microscopy: quantitative analysis of blood cells part 1: Haemopoiesis; blood cell counting & erythrocyte measurement (how and why);	manual cell counting and calculation of absolute values; SI units in haematology; calculation of erythrocyte indices	manual cell counting and calculation of absolute values; calculation of erythrocyte indices OLSAS 5 released	
12	16/5/15	Microscopy: quantitative analysis of blood cells part 2: Leukocytes: differentiation and clinical significance	Leukocyte differential counting and calculating absolute values	Leukocyte differential counting; calculating absolute values	OLSAS 5 due Friday 20th May
13	23/5/15	End of semester theory test – haematology module: microscopy; cell morphology; calculating % and absolute values; reference intervals and significance of results; terminology		End of semester prac test: microscopy; manual cell counting (red & white); manipulation of equations to estimate an unknown; use of controls and standards; reference intervals and significance of results	



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