Acknowledgement of Country

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

Unit Outline

BIOL3001 Exploring Protein Structure
Semester 2, 2016

Unit study package code: BIOL3001
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: 2 x 1 Hours Weekly
Practical: 1 x 3 Hours Weekly
This unit does not have a fieldwork component.
Credit Value: 25.0
Pre-requisite units: 307692 (v.0) Bioinformatics 331 or any previous version
OR
BIOL3000 (v.0) Introduction to Bioinformatics and Functional Genomics or any previous version
Co-requisite units: Nil
Anti-requisite units: Nil
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: Steven Bottomley
Phone: +618 9266 4369
Email: S.Bottomley@curtin.edu.au
Location: Building: 308 - Room: 204

Teaching Staff:

Administrative contact:
Name: Kathleen Manners
Phone: +618 9266 3846
Email: Kathleen.Manners@curtin.edu.au
Location: Building: 308 - Room: 218

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

This unit emphasises protein structure and function. This unit explores topics such as: diversity of protein structure, bioenergetics, protein folding, molecular interactions, computer-aided visualisation of protein structure, and modeling of protein structure. This emphasis on protein structure and function reflects the crucial importance of proteins to life.

Introduction

Welcome to Exploring Protein Structure!

This unit emphasises protein structure and function. We will explore the detail of protein structure and function, investigate molecular interactions within proteins, visualise protein structure, and model protein structure. This unit offers a glimpse at the incredible molecular diversity and beauty of proteins. Moreover, the emphasis on proteins reflects the crucial importance of proteins for life.

The syllabus of this unit will change gradually over the next few years to reflect the new name change (it was previously called Structural Bioinformatics 332), but the current topics are listed in the syllabus.

Your success at learning topics in 'Exploring Protein Structure' is based upon your desire to learn, your ability to study effectively, remember detail, ask questions, research, solve problems, and integrate the subject into a coherent and understandable body of knowledge. It is also important to talk about the subject with your fellow students and lecturers.

Please take time to carefully read this unit outline. It explains most of what you need to know about this unit. If you have any difficulty understanding what is required of you, or you need clarification of any item in this unit outline, then please contact the unit coordinator immediately.

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 recall and explain concepts of protein structure and function</td>
<td>📋🔍</td>
</tr>
<tr>
<td>2 Apply learned knowledge to solve assigned problems in protein structure and function</td>
<td>🎨💡</td>
</tr>
<tr>
<td>3 Demonstrate competency in using software programs to visualise and analyse protein structure at the molecular level</td>
<td>🎨🔍</td>
</tr>
<tr>
<td>4 Analyse, investigate, and communicate aspects of protein structure and function</td>
<td>🎨💡</td>
</tr>
</tbody>
</table>

Faculty of Health Sciences
School of Biomedical Sciences

BIOL3001 Exploring Protein Structure
Bentley Campus
22 Jul 2016
School of Biomedical Sciences, Faculty of Health Sciences

The only authoritative version of this Unit Outline is to be found online in OASIS
Curtin’s Graduate Attributes

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

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

Learning Activities

The principal learning activities in this unit are lectures, practicals, and ‘Questions for learning’.

Lectures

Attendance at all lectures is recommended because it gives you an opportunity to ask questions and discuss the subject with your fellow students and lecturer. One of the principal teaching, and learning, ideas in this unit is that you learn by asking questions! Ask yourself questions, ask your fellow students, and ask your lecturer. The lecture topic may be given earlier, or later, than that shown in the indicated schedule. Some lectures may also be extended or curtailed. The content of the lectures may also change at the ‘last minute’. These ‘last minute’ changes are certainly not an indication of disorganisation. You should understand that these changes are usually designed to present recent material, aid student learning, adjust to the perceived progress of the student cohort, and may also be the result of feedback from students. These changes are for the benefit of students, not meant to be inconvenient or to confuse, and are at the discretion of the lecturer and unit coordinator.

Please understand the following:

- You are responsible for your own learning in this unit. You determine how much, and in what detail, you need to study for the topics in this unit.
- Lectures are only a guide to a topic in the syllabus and your understanding of each topic will only be achieved by broader reading of your text and other reference materials.
- Be prepared for lectures! Read the lecture notes, textbook chapters, and any other reading before attending lectures.
- Ask questions during lectures.
- Some lectures may be modified, or updated, during semester and may not be available on Blackboard until just prior to, or just after, the scheduled lecture.
- Do not expect a lecture to always be a ‘one-way’ learning experience (lecturer to you) where you can ‘sit back and relax’ or be ‘entertained’. You will be expected to think and contribute during the lecture.
- Your attention in the lecture is important for your learning. Consequently, do not attend the lecture if you intend to talk with your friends about things unrelated to the lecture topic or if you want to sleep.
- Any unnecessary, disruptive, or unrelated activity by students during lectures may result in the embarrassment of the student(s) being asked to leave the lecture.
- If lectures or lecture notes are unavailable for any reason (or even if they are available) you are still responsible for making your own notes during the lecture!
- If lectures are cancelled for any reason (e.g. lecturer ill) you are still responsible for learning the lecture topic from lecture notes and other reading.
- You may also find that you need to study more (or less) than other students depending upon your existing knowledge and ability.
- Please also note that the Academic Workload Management System implemented by the university (which allocates time for all activities conducted by a lecturer) allocates a maximum time of two hours for updating, reviewing, or changing an existing lecture topic or developing a new lecture topic in an existing unit. Consequently, this will necessarily affect the frequency, coverage, and quality of comprehensive updates of the subject material by the lecturer.
Practicals

There are no structured practical classes in this unit. However, a three-hour unsupervised practical class has been specifically set aside for all students in this unit to have exclusive access to the computer lab in 308.104. This is to ensure that students have access to computer facilities that they can use to complete assignments. Although the classes are not supervised the lecturer will use some of the practical class time to make announcements, explain assignments, and be available to help guide students and answer any queries or questions. This exclusive class time is also useful for students to meet and discuss the subject between themselves or with the lecturer.

Questions for Learning

‘Questions for Learning’ are questions that will be found in some lectures, as online quizzes on Blackboard, or as lists of questions posted on Blackboard. As the name suggests the questions are designed to help you learn as you progress through semester. In particular, the ‘Questions for Learning’ help you:

- Guide your study of the topics in this unit
- Review your knowledge of the topics as you progress through the semester.
- Determine ‘what you need to know’ for the topics in this unit.
- Determine ‘how much you need to know’ for the topics in this unit.
- Determine ‘what detail you need to know’ for the topics in this unit.
- Determine how much you have learned and receive feedback.
- Achieve the learning objectives for this unit.
- Practice for the end of semester theory exam.

The number, type, and frequency of ‘Questions for Learning’ depend upon the time available and are at the discretion of the lecturer or unit coordinator. However, students are encouraged to suggest topics for these questions. ‘Questions for Learning’ are not directly assessed, but some of the questions (or similar questions) may appear in the end of semester exam. You are strongly advised to complete as many ‘Questions for Learning’ as possible to help you in your study of the topics in this unit.

Feedback

Feedback is necessarily a two-way process. Feedback involves you providing information to help the lecturers learn more about you, your knowledge, or correct any misunderstanding. Your lecturers provide you information to help you learn, correct any misunderstanding, or clarify what you need to do. Feedback in this unit is considerable and occurs in two basic forms:

- When verbal or written information is exchanged directly between you and your lecturer
- When you receive written answers or explanations from lectures, from any practical activity, or from "Questions for Learning."

Feedback can occur at any time during semester either in class or out of class. Feedback ‘out of class’ can occur through Curtin’s Blackboard learning management system (e.g. Announcements and the Discussion Board) or any other form of acceptable communication (e.g. email or personal appointment).

Other learning activities

Other learning activities include:

- Reading Adobe Acrobat (pdf) files of lectures. reading textbooks, reading any other document or resource related to the syllabus.
- Watching and listening to iLectures
- Posting questions or contributing to the Blackboard Discussion board.

Study Load

You will probably need to study at least 5 hours a week outside of scheduled classes. However, you may need more time if you don’t have a strong background in biochemistry, bioinformatics, or if you find the topics difficult to understand.
Learning Resources

Essential texts

The required textbook(s) for this unit are:

  (ISBN/ISSN: 978-1-4398-1071-2)

Online resources

  (http://www.crcnetbase.com/isbn/9781439810712)
  (ISBN/ISSN: 978-1-4398-1071-2)

Other resources

Electronic version of textbook

Curtin staff and students currently have full online text access to the Kessel&Ben-Tal ebook through the CRCnetBase web site. If you log in and use a Curtin-computer on campus you should be able to download pdf versions of chapters in this ebook from the web site given above.

If you are not using a Curtin computer or you are off campus, then you will first have to use your web browser to log into the Curtin Library Catalogue, navigate to the 'Databases A-Z' site and select CRCnetBase from the list of databases. Once you are at the CRCnetBase web site you will see a subject list on the left of the browser window. Click the small triangle to the left of the 'Computer Science and Engineering' link to expand the list. Then click on the 'Computational Biology' link. You should then be able to see, and select, the book title on the right hand list.

No textbook is perfect and you will need to use other textbooks, journal articles and various resources to help you with your learning. Other excellent, and very useful, complementary textbooks include:


Other resources

In addition to textbooks, pdf versions of lectures, and ilectures, additional resources to help you with your study include:

- The Internet. However, please ensure that you access information from only credible and reputable web sites.
- Your friends and colleagues
- Your lecturers and unit coordinator
- Additional documents, or resources, available on Blackboard
- Molecular visualisation programs such as DeepView (Swiss Prot Viewer)
- Interactive protein structure tutorial on the SB332 Blackboard site.
- Various guides for study and research skills. See the Curtin University Library: http://library.curtin.edu.au
- International Society for Computational Biology: http://www.iscb.org/

The lecturer and unit coordinator are important ‘resources’ that you can access. However, before you approach these people please ensure that you have first done your homework and have attempted to answer the questions. In your discussion with the lecturer, or unit coordinator, please expect to answer questions before being helped with an answer to your question. The lecturer, or unit coordinator, may ask you questions to help them determine your level.
of knowledge, your preparation, and how to appropriately address your question(s).

At third year level you are expected to further develop the ability, and skills, to seek out, and use, alternative sources of information from other appropriate textbooks, monographs, journal articles, or information on the Internet to help you understand the topics in this unit. In some cases a lecture, or practical, may also include additional references or suggestions for ‘further reading’. You should make use of all of these resources to complement and enhance your own learning.

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>
<tbody>
<tr>
<td>Final examination</td>
<td>50 percent</td>
<td>Week: Exam Weeks: 14 November to 25 November 2016 Day: To be advised via Oasis Time: To be advised via Oasis</td>
<td>1,2,3,4</td>
</tr>
<tr>
<td>Assignment 1</td>
<td>5 percent</td>
<td>Week: Week 3 Day: Thursday Time: 5:00pm</td>
<td>1,2,3,4</td>
</tr>
<tr>
<td>Assignment 2</td>
<td>25 percent</td>
<td>Week: Week 8 Day: Thursday Time: 5:00pm</td>
<td>1,2,3,4</td>
</tr>
<tr>
<td>Assignment 3</td>
<td>20 percent</td>
<td>Week: Week 13 Day: Thursday Time: 5:00pm</td>
<td>1,2,3,4</td>
</tr>
</tbody>
</table>

Detailed information on assessment tasks

1. **End of Semester Exam**

   This end of semester theory exam reviews all of the lecture topics and syllabus of this unit and you should note the following:

   - This end of semester theory exam is a two-hour, supervised, centrally-scheduled written exam.
   - The exam may be comprised of up to 100 questions.
   - The questions may include: multiple-choice, multiple-answer, true/false, fill-in-the-blank, short answer, and essay style questions.
   - Some questions may be the same as, or similar to, the ‘Questions for Learning’. Consequently, it may be a useful strategy for you to learn from completing as many ‘Questions for Learning’ as possible throughout semester.
   - Some questions may require calculations and you will be allowed to use a calculator.
   - Assessment criteria are based on facts and concepts of topics presented in this unit as determined by the lecturer or unit coordinator.
   - Feedback is not usually available for end of semester exams.
   - This is a centrally scheduled exam, so you will be advised on the location, date, and time of the exam via an Official Curtin Communication (OCC) through Oasis.

2. **Creating a PDB file**

   This assignment is self-directed and self-paced and you must take responsibility for your own learning. You are encouraged to think about, and explore, the subject. You are encouraged to discuss the projects with your fellow students and to ask your lecturer questions. You should only submit your own work. You should try and take advantage of all the class time to complete the assignment although you should also spend time after normal class hours either at home or in the computer lab. You are expected to achieve the following learning objectives:
Construct your own novel PDB file and consequently understand what can, and cannot, be done with the PDB file format.
Understand the relationship between the atom coordinates and the display of those coordinates by the molecular visualisation program.
Use an appropriate molecular visualisation program to view, and analyse, your pdb file.

The assignment submission and assessment details are as follows:
- A student submits their assignment using Turnitin on Blackboard.
- Only assignments submitted through Turnitin will be accepted.
- Assessment criteria are stated in the assignment notes and a rubric is used to mark the assignment.
- Feedback will be available after all assignments have been assessed.

3. Exploring Protein Structure using Deep View Molecular Visualisation Software

This assignment is self-directed and self-paced and you must take responsibility for your own learning. You are encouraged to think about, and explore, the subject. You are encouraged to discuss the projects with your fellow students and to ask your lecturer questions. You should only submit your own work. You should try and take advantage of all the class time to complete the assignment although you should also spend time after normal class hours either at home or in the computer lab. You are expected to achieve the following learning objectives:
- Explore protein structure
- Learn and understand details of protein structure, molecular interactions, and molecular visualisation concepts
- Use your existing knowledge and skill with the ‘Deep View’ molecular structure visualisation program to investigate and analyse protein structure
- Use associated software or Internet resources as necessary.
- Describe and analyse aspects of protein structure and molecular interactions
- Competent, effective, and professional use of the Deep View molecular visualization software program
- Practice research skills
- Practice problem solving skills
- Critically analyse protein structure

The assignment submission and assessment details are as follows:
- A student submits their assignment using Turnitin on Blackboard.
- Only assignments submitted through Turnitin will be accepted.
- Assessment criteria are stated in the assignment notes and a rubric is used to mark the assignment.
- Feedback will be available after all assignments have been assessed.

4. Creating a homology model of a protein

This assignment is self-directed and self-paced and you must take responsibility for your own learning. You are encouraged to think about, and explore, the subject. You are encouraged to discuss the projects with your fellow students and to ask your lecturer questions. You should only submit your own work. You should try and take advantage of all the class time to complete the assignment although you should also spend time after normal class hours either at home or in the computer lab. You are expected to achieve the following learning objectives:
- Continue to enhance your skills with the ‘Deep View’ molecular structure visualisation program to view, and manipulate, protein three dimensional (3D) structures.
- Use Deep View, Swiss-Model, or both to model a protein that does not have a solved 3D structure using homology modelling.
- Use associated software or Internet resources as necessary.
- Consolidate and apply knowledge
- Practice research skills
- Practice problem solving skills
- Critically analyse protein structure

The assignment submission and assessment details are as follows:
- A student submits their assignment using Turnitin on Blackboard.
Only assignments submitted through Turnitin will be accepted.
Assessment criteria are stated in the assignment notes and a rubric is used to mark the assignment.
Feedback will be available after all assignments have been assessed.

Pass requirements
You are required to satisfactorily complete all components of assessment to pass this unit. Satisfactory completion usually means that you need to achieve at least 50% of the total mark for each component of the assessment. You are also expected to achieve a final combined mark of at least 50%, of the total semester mark, from both components of the assessment to pass this unit. If any of the components of assessment is not completed satisfactorily, then this may result in a ‘Failed-Incomplete’ (F-IN) grade being allocated at the end of semester regardless of the total mark achieved. The Board of Examiners will make the final decision on a student’s status in the unit (i.e. pass, fail, or fail-incomplete). Consequently, it is important for you to demonstrate to the Board that you are a diligent student and that you have made an appropriate effort in the unit.

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. Late submission of assessments is not accepted in this unit. Students will receive a zero mark for any assessment item submitted late.

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.

Please note:
During semester, where assessment extensions are granted by the Unit Coordinator, assessments (e.g. tests, essay and lab reports) will be completed on a specific date and time to be confirmed by the Unit Coordinator.
Deferred FINAL EXAMS will be completed between November 14th 2016 and December 16th 2016, specific date and time to be confirmed by Unit Coordinator.

Deferred assessments
If your results show that you have been granted a deferred assessment you should immediately check OASIS for details.
Deferred examinations/tests will be held from 14/11/2016 to 16/12/2016. Notification to students will be made after the Board of Examiners’ meeting via the Official Communications Channel (OCC) in OASIS.
Supplementary assessments

Supplementary assessments are not available in this unit.

Reasonable adjustments for students with disabilities/health circumstances likely to impact on studies

A Curtin Access Plan (CAP) is a document that outlines the type and level of support required by a student with a disability or health condition to have equitable access to their studies at Curtin. This support can include alternative exam or test arrangements, study materials in accessible formats, access to Curtin’s facilities and services or other support as discussed with an advisor from Disability Services (disability.curtin.edu.au). Documentation is required from your treating Health Professional to confirm your health circumstances.

If you think you may be eligible for a CAP, please contact Disability Services. If you already have a CAP please provide it to the Unit Coordinator at the beginning of each semester.

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

Guest Lecturers

Professor Ricardo Mancera is a valued, and long-time, contributor to this unit and will be a guest lecturer for three lectures: Computer-aided drug design, Force Fields, and Molecular Dynamics Methods (indicated by (RM) in the study schedule).

Other guest lecturers may also kindly contribute their time and expertise to present topics in this unit. Please try and respect their contribution by attending their lectures. Thank you.

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://eesi.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:

Changes in content, presentation, or assessment in this unit are ongoing. These changes are the result of a continual active process of innovation, exploration, modification, academic self-reflection, student feedback, and peer feedback.

Importantly, the design, content, and presentation of this unit is also an assertion of academic freedom. What does academic freedom mean? The Global Consortium of University Presidents (2005) defined academic freedom as: “the freedom to conduct research, teach, speak, and publish, subject to the norms and standards of scholarly inquiry, without interference or penalty, wherever the search for truth and understanding may lead.”

<table>
<thead>
<tr>
<th>Week</th>
<th>Week Begin</th>
<th>Lecture Wednesday 9am to 10am 312.222</th>
<th>Lecture Friday 1pm to 2pm 312.222</th>
<th>Practical Thursday 2pm-5pm 308:104</th>
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<tbody>
<tr>
<td>1</td>
<td>1-Aug</td>
<td>Introduction to the Unit</td>
<td>Molecular Visualisation &amp; Files</td>
<td>Introduction to Practicals</td>
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<tr>
<td>2</td>
<td>8-Aug</td>
<td>Protein Structure Databases</td>
<td>Molecular Forces</td>
<td>Practical 1</td>
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<tr>
<td>3</td>
<td>15-Aug</td>
<td>Amino Acids and Peptide Bond</td>
<td>Protein Structure 1</td>
<td>Practical 2</td>
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<td>Submit Assignment 1</td>
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<td>4</td>
<td>22-Aug</td>
<td>Protein Structure 2</td>
<td>Protein Structure 3</td>
<td>Practical 3</td>
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<td>5</td>
<td>29-Aug</td>
<td>Tuition Free Week</td>
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<td>Tuition Free Week</td>
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<tr>
<td>6</td>
<td>5-Sep</td>
<td>Protein Structure Methods 1</td>
<td>Protein Structure Methods 2</td>
<td>Practical 4</td>
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<td>7</td>
<td>12-Sep</td>
<td>Protein Structure Methods 3</td>
<td>Protein Folding</td>
<td>Practical 5</td>
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<td>8</td>
<td>19-Sep</td>
<td>Drug Discovery</td>
<td>Computer Aided Drug Design (RM)</td>
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<td>26-Sep</td>
<td>Tuition Free Week</td>
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<td>Force Fields (RM)</td>
<td>Molecular Dynamics Methods (RM)</td>
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<td>Molecular Modelling</td>
<td>Secondary Structure Prediction</td>
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<td>Structure Comparison</td>
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<td>Homology Modelling</td>
<td>Protein Structure-Function 1</td>
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<td>14</td>
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<td>Protein Structure Function 2</td>
<td>Self Study or Tutorial</td>
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<td>7-Nov</td>
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<td>16&amp;17</td>
<td>14-Nov</td>
<td>Exam Weeks 14 Nov to 25 Nov</td>
<td>Exam Weeks 14 Nov to 25 Nov</td>
<td>End of Semester Exam Advised via Oasis</td>
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Note: (RM) indicates that Professor Ricardo Mancera is the lecturer