National Centre for Maritime Engineering & Hydrodynamics
Australian Maritime College

JEE329
SEAKEEPING AND MANOEUVRING

Semester 1, 2019
Unit Outline

Dr Jonathan Duffy
CONTACT DETAILS

Unit coordinator

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Phone: 03 6324 9899
Room location and number: Swanson Building, B15
Consultation hours: via appointment
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WHAT IS THE UNIT ABOUT?

Unit description

Knowledge of the behaviour of a marine vehicle in waves and its manoeuvring characteristics is essential when designing such vehicles. The purpose of the unit is to introduce the concepts of ship behaviour in waves and ship manoeuvring and to introduce the process of evaluating the seakeeping and manoeuvring performance of a marine vehicle. This builds on the basic engineering knowledge gained in previous years.

Intended Learning Outcomes

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

1. Apply techniques to predict the roll, pitch and heave motion of a vessel travelling in regular waves and irregular waves and assess vessel motions against seakeeping criteria.
2. Describe the concepts of dynamic stability, motion reduction devices, added resistance in waves and methods to predict the likelihood of seasickness.
3. Describe the manoeuvring forces acting on a vessel and the equations of motion governing vessel manoeuvring.
4. Apply techniques to predict and assess the manoeuvring behaviour of a vessel.
Graduate 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 published in the Bachelor of Engineering Course Rules. This document is available at [http://www.amc.edu.au/ncmeh-course-information](http://www.amc.edu.au/ncmeh-course-information).

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 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 critical and creative literacies and numeracies and skills of inquiry. They demonstrate the ability to apply this knowledge in changing circumstances. Our graduates recognise and critically evaluate issues of social responsibility, ethical conduct and sustainability, are entrepreneurial and creative, and are mindful of their own wellbeing and that of the community. Through respect for diversity and by working in collaborative ways, our graduates reflect the values of the University of Tasmania.

Alterations to the unit as a result of student feedback

No alterations have been made since the last delivery of the unit.

Prior knowledge &/or skills

A general knowledge of engineering at an appropriate level following two years studying an engineering degree.
### HOW WILL I BE ASSESSED?

#### Assessment schedule

<table>
<thead>
<tr>
<th>Assessment task</th>
<th>Date due</th>
<th>Percent weighting</th>
<th>Links to Intended Learning Outcomes</th>
</tr>
</thead>
<tbody>
<tr>
<td>Class Test 1</td>
<td>Week 5</td>
<td>10%</td>
<td>1, 2</td>
</tr>
<tr>
<td>Laboratory</td>
<td>Week 9</td>
<td>10%</td>
<td>1</td>
</tr>
<tr>
<td>Assignment</td>
<td>Week 11</td>
<td>20%</td>
<td>1</td>
</tr>
<tr>
<td>Class Test 2</td>
<td>Week 12</td>
<td>10%</td>
<td>3, 4</td>
</tr>
<tr>
<td>Final Exam</td>
<td>TBA</td>
<td>50%</td>
<td>1, 2, 3, 4</td>
</tr>
</tbody>
</table>

#### Assessment details

**Class test 1 (Seakeeping)**

**Task description**

Closed book class test covering all aspects of the seakeeping component of the unit covered up to the date of the test. The test will include questions requiring written answers and computational questions. Students are to submit the class test at the end of the allocated time for assessment. This task is assessed individually. The completed class test will be returned as soon as they are graded.

<table>
<thead>
<tr>
<th>Criteria</th>
<th>Measures Intended Learning Outcome:</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Ability to read a question and percolate out of it the relevant information and formulae</td>
<td>1, 2</td>
</tr>
<tr>
<td>• Knowledge and level of understanding of the subject matter</td>
<td></td>
</tr>
<tr>
<td>• Demonstrate correct processes and procedure when solving computational problems. Ability to clearly communicate what you did and how you did it.</td>
<td></td>
</tr>
<tr>
<td>• Accuracy of computations</td>
<td></td>
</tr>
</tbody>
</table>

**Task length**

50 minutes

**Due date**

Thursday 28th March 2019
### Laboratory

#### Task description
- Conduct a model scale experiment in groups to measure the heave and pitch motions and added resistance of the FTV Bluefin in regular waves
- Produce heave and pitch motion transfer functions
- Compare the measured data to predictions using Maxsurf Motions (Bentley Engineering)
- Each group is to submit a clear and concise professional report outlining the findings from the seakeeping investigation

<table>
<thead>
<tr>
<th>Criteria</th>
<th>Measures Intended Learning Outcome:</th>
</tr>
</thead>
<tbody>
<tr>
<td>Written communication skills and report content</td>
<td>1</td>
</tr>
<tr>
<td>Presentation of report and data (figures, tables, equations)</td>
<td></td>
</tr>
<tr>
<td>Accuracy of measured heave and pitch motions</td>
<td></td>
</tr>
<tr>
<td>Quality of predictions and explanation of parameters input to Maxsurf Motions with justification</td>
<td></td>
</tr>
<tr>
<td>Thoroughness and quality of discussion of results</td>
<td></td>
</tr>
<tr>
<td>Conclusions</td>
<td></td>
</tr>
</tbody>
</table>

#### Criteria

- Task length: NA
- Due date: Friday 3rd May 2019 at 4pm
### Assignment

<table>
<thead>
<tr>
<th>Task description</th>
<th>Criteria</th>
<th>Measures Intended Learning Outcome:</th>
</tr>
</thead>
<tbody>
<tr>
<td>Interpret wave measurements</td>
<td>Written communication skills and report content</td>
<td>1</td>
</tr>
<tr>
<td>Perform a seakeeping analysis on FTV Bluefin using Maxsurf Motions (Bentley Engineering)</td>
<td>Presentation of data</td>
<td></td>
</tr>
<tr>
<td>Assess the predicted seakeeping performance of FTV Bluefin against specific criteria</td>
<td>Limitations of the Maxsurf Motions prediction technique, including those associated with the prediction of ship motions in regular waves and irregular waves</td>
<td></td>
</tr>
<tr>
<td>Submit a concise professional report outlining the findings from the seakeeping investigation</td>
<td>Quality of predictions and explanation of parameters input to Maxsurf Motions with justification</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Presentation of data (figures, tables, equations)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Thoroughness and quality of discussion of results</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Concluding remarks</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Task length</th>
<th>Due date</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>NA</td>
<td>Tuesday 14th May 2019 at 4pm</td>
<td></td>
</tr>
</tbody>
</table>

### Class test 2 (Manoeuvring)

<table>
<thead>
<tr>
<th>Task description</th>
<th>Criteria</th>
<th>Measures Intended Learning Outcome:</th>
</tr>
</thead>
<tbody>
<tr>
<td>Closed book class test covering all aspects of the manoeuvring component of the unit covered up to the date of the test. This is assessed individually. Students are to submit the class test at the end of the allocated time for assessment. The completed class test will be returned as soon as they are graded.</td>
<td>Ability to read a question and percolate out of it the relevant information and formulae</td>
<td>3, 4</td>
</tr>
<tr>
<td></td>
<td>Knowledge and level of understanding of the subject matter</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Demonstrate correct processes and procedure when solving computational problems. Ability to clearly communicate what you did and how you did it.</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Accuracy of computations</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Task length</th>
<th>Due date</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>50 minutes</td>
<td>Thursday 23rd May 2019</td>
<td></td>
</tr>
</tbody>
</table>
Final Exam

Description / conditions
Students are responsible for material from lectures and tutorials. A 3-hour closed book exam will cover all aspects of the unit. This is assessed individually. You are allowed to bring along with you a non-programmable calculator (Casio fx-82AU PLUS II or equivalent) and other material specified that is required for the exam purposes. A formula sheet, if required, will be attached to the question paper. The exam is designed to address all of the learning outcomes.

Criteria

<table>
<thead>
<tr>
<th>Criteria</th>
<th>Measures Intended Learning Outcome:</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Ability to read a question and percolate out of it the relevant information and formulae</td>
<td>1, 2, 3, 4</td>
</tr>
<tr>
<td>• Knowledge and level of understanding of the subject matter</td>
<td></td>
</tr>
<tr>
<td>• Demonstrate correct processes and procedure when solving computational problems. Ability to clearly communicate what you did and how you did it.</td>
<td></td>
</tr>
<tr>
<td>• Accuracy of computations</td>
<td></td>
</tr>
</tbody>
</table>

Criteria

| Duration | 3 hours |

Date
The final exam is conducted by the Student Centre in the formal examination period. See the Examinations and Results page on the University’s website, or access your personal exams timetable by logging into the eStudent Centre - Personal Exams Timetable for specific date, time and location closer to the examination period.

How your final result is determined

To pass this unit, you need to demonstrate your attainment of each of the Intended Learning Outcomes.

The grade that you receive for this unit will be determined by a committee of examiners. The raw marks that you receive from each piece of assessable material will be combined in order to determine a letter grade for the unit (see Assessment Schedule for per cent weighting). The raw marks may undergo a scaling process.

Assessments will be awarded a grade from HD to NN in accordance to a criterion based grading system where applicable (see BE Course Rules). Where applicable, this will be based on an assessment matrix (to be handed out before the assignment due date), which identifies the level of performance by indicative characteristics associated with each level against each criterion. The criterion based grading system will provide students with the following grades for each assignment, with the final grade obtained by combining the grades of the assessments in line with allocated weighting.

| Grade | HD- to HD+ | DN- to DN+ | CR- to CR+ | PP- to PP+ | NN (Fail) |

A student needs to achieve an overall average of 50% to pass this unit.
Submission of assignments

All assignments, reports, etc. must be completed using the template provided on the AMC website, unless otherwise specified by the lecturer. All coursework must have the AMC Assignment Cover Sheet attached which can be downloaded from the AMC website: http://amc.edu.au/ncmeh-course-information

All assignments and reports must be typed and completed using Word, Excel, approved Engineering drawing software and include the relevant theory, illustrations, results, analysis, and conclusion.

Group reports must be signed by all participants.

Assignments and reports must be submitted online through MyLO.

The assessed work will be returned during lectures or as agreed between the students and the lecturer.

Please remember that you are responsible for lodging your coursework on or before the due date. We strongly recommend that you keep a copy. Even in the most ‘perfect’ of systems, items sometimes go astray.

Requests for extensions

Extensions will only be granted on medical or compassionate grounds. Requests for extensions should be made via email to the lecturer prior to the due date. Medical certificates or other evidence must be included (electronically or the hard copy mailed) and must contain information which justifies the extension sought.

Penalties

Late assignments which have not been granted an extension will, at the lecturer’s discretion, be penalised by deducting ten per cent of total marks for each day overdue. Assignments submitted more than five days late will normally not be accepted by the lecturer.

Non-attendance or non-participation of the laboratory sessions will result in a fail grade for the unit.

Failure to adhere with the WH&S standards whilst taking part in any assessed activity that involves field trips and/or that requires the use of UTAS or AMC facilities will result in the following penalties:

- first offense - 5% penalty (applicable to the whole team in team projects);
- second offense by student (or another member of the same team in team projects) - 20% penalty (applicable to the whole team in team projects); and
- third offense - a fail grade in the assessment.
Review of results and appeals

If you have questions about, or problems with, your assessment you should discuss this with the following people:

(1) The person who marked the assessment.
(2) Unit Coordinator.
(3) Course Coordinator.
(4) Director, NCMEH.

If this does not resolve the issue, you may file a formal review of assessment. The procedure is given at: http://www.utas.edu.au/exams/results

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 APA (6th edition).

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.
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. Lecture notes, supplementary lecture material, tutorial solutions, test formula sheets and assessments can be downloaded via MyLO.

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.

Resources

Required readings
Lecture notes (can be downloaded from MyLO)

It is important that you have ongoing access to the lecture notes.

Recommended readings

These materials may be useful for developing your knowledge and understanding of the content in this unit, but you are not required to purchase them. When seeking sources of evidence to support your assignment work, you may find these a useful starting point.
Equipment, materials, software, accounts

**Materials to be provided by the student**

- A non-programmable scientific calculator (Casio fx-82AU PLUS II or equivalent) is required at all times.
- Suitable shoes and clothing are required for laboratory work. Inappropriate footwear includes open top shoes and sandals.

**Materials to be provided by AMC**

- Supplementary lecture material
- Computer labs as required (students must have working accounts before semester starts)
- Access to Towing Tank for laboratory

**Extra costs**

- Photocopying and printing costs
- Students can arrange to purchase a hard copy of the lecture notes from Mercury Walch

**Computer hardware & software**

- Word processing (Microsoft Word), spreadsheet (Microsoft Excel), Bentley Engineering

**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.

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

<table>
<thead>
<tr>
<th>CLASS</th>
<th>DAY</th>
<th>TIME</th>
<th>LOCATION</th>
<th>GROUP</th>
</tr>
</thead>
<tbody>
<tr>
<td>Lecture</td>
<td>Tuesday</td>
<td>1500-1550</td>
<td>F46</td>
<td>All</td>
</tr>
<tr>
<td>Lecture</td>
<td>Tuesday</td>
<td>1600-1650</td>
<td>F46</td>
<td>All</td>
</tr>
<tr>
<td>Tutorial/Lecture</td>
<td>Wednesday</td>
<td>1200-1250</td>
<td>F44</td>
<td>All</td>
</tr>
<tr>
<td>Lecture</td>
<td>Thursday</td>
<td>1000-1050</td>
<td>G47</td>
<td>All</td>
</tr>
<tr>
<td>Laboratory</td>
<td>8-12 April</td>
<td>TBA</td>
<td>Towing Tank</td>
<td>See group listing</td>
</tr>
</tbody>
</table>

Check tutorial groups and lab timetable/groups to identify your designated time and day.
<table>
<thead>
<tr>
<th>WEEK</th>
<th>WEEK BEGINNING</th>
<th>TOPIC/ MODULE/ FOCUS AREA</th>
<th>ACTIVITIES</th>
<th>RESOURCES/ READINGS/ FURTHER INFORMATION</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>25 February</td>
<td>Seakeeping: regular waves, predicting heave motion in regular waves</td>
<td>Demonstration in Towing Tank</td>
<td>Lecture notes and supplementary lecture material</td>
</tr>
<tr>
<td>2</td>
<td>4 March</td>
<td>Seakeeping: predicting heave motion in regular waves</td>
<td></td>
<td>Lecture notes and supplementary lecture material</td>
</tr>
<tr>
<td>3</td>
<td>11 March</td>
<td>Seakeeping: predicting pitch motion in regular waves</td>
<td></td>
<td>Lecture notes and supplementary lecture material</td>
</tr>
<tr>
<td>4</td>
<td>18 March</td>
<td>Seakeeping: predicting roll motion in regular waves</td>
<td></td>
<td>Lecture notes and supplementary lecture material</td>
</tr>
<tr>
<td>5</td>
<td>25 March</td>
<td>Seakeeping: irregular waves and wave spectra, predicting vessel motions in an irregular seaway</td>
<td>Class test 1 on 28 March</td>
<td>Lecture notes and supplementary lecture material</td>
</tr>
<tr>
<td>6</td>
<td>1 April</td>
<td>Seakeeping: predicting vessel motions in an irregular seaway</td>
<td></td>
<td>Lecture notes and supplementary lecture material</td>
</tr>
<tr>
<td>7</td>
<td>8 April</td>
<td>Seakeeping: powering in a seaway, dynamic stability, motion reduction devices, severe motions, seakeeping in design, motion sickness incidence</td>
<td>Tutorial on Maxsurf Motions, Seakeeping laboratory in Towing Tank</td>
<td>Lecture notes and supplementary lecture material</td>
</tr>
<tr>
<td>8</td>
<td>15 April</td>
<td>Manoeuvring: control loop, motion stability, equations of motion, physical meaning of derivatives</td>
<td></td>
<td>Lecture notes and supplementary lecture material</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Mid-semester break: 18 April – 25 April (incl. ANZAC Day public holiday)</td>
</tr>
<tr>
<td>9</td>
<td>29 April</td>
<td>Manoeuvring: physical meaning of derivatives, controls fixed stability, non-linear equations of motion</td>
<td>Demonstration in Model Test Basin. Laboratory due 3 May at 4pm</td>
<td>Lecture notes and supplementary lecture material</td>
</tr>
<tr>
<td>10</td>
<td>6 May</td>
<td>Manoeuvring: turning, model experiments, prediction of coefficients, manoeuvring trials, IMO regulations</td>
<td>Ship-handling simulator demonstration</td>
<td>Lecture notes and supplementary lecture material</td>
</tr>
<tr>
<td>11</td>
<td>13 May</td>
<td>Manoeuvring: influence of rudder and propeller</td>
<td>Assignment due 14 May at 4pm</td>
<td>Lecture notes and supplementary lecture material</td>
</tr>
<tr>
<td>12</td>
<td>20 May</td>
<td>Manoeuvring: restricted water</td>
<td>Class test 2 on 23 May</td>
<td>Lecture notes and supplementary lecture material</td>
</tr>
<tr>
<td>13</td>
<td>27 May</td>
<td>Manoeuvring: restricted water Seakeeping and Manoeuvring: revision</td>
<td></td>
<td>Lecture notes and supplementary lecture material</td>
</tr>
</tbody>
</table>
Topics covered

1. Seakeeping (34 Hours):

   a) Predict ship motions in regular waves
   Properties of regular waves, techniques to predict the heave, pitch and roll motion of a vessel in a regular wave.

   b) Predict ship motions in irregular waves
   Generate wave spectra from finite wave height records in the time domain and calculate properties of an irregular seaway from wave spectra, use the linear superposition technique to predict the heave, pitch and roll motion of a vessel in an irregular seaway.

   c) Model tests
   Model test methods, conduct model scale experiments to predict the heave and pitch motion of a vessel in head seas.

   d) Ship performance in waves
   Dynamic stability and capsizing, motion reduction devices, the influence of a seaway on the power required to propel a vessel.

   e) Assessment of ship seakeeping performance
   Methods to predict the likelihood of seasickness, assess predicted vessel motions against seakeeping criteria.

2. Manoeuvring (18 Hours):

   a) Equations of motion
   Linear and non-linear equations of motion, non-dimensional equations of motion, physical meaning of the hydrodynamic coefficients, directional stability.

   b) Forces on a manoeuvring vessel
   Forces acting on a manoeuvring vessel, including the effect of a rudder, a propeller, restricted water and tugs on vessel manoeuvring characteristics.

   c) Prediction and assessment of ship manoeuvring
   Experimental and theoretical techniques to predict and assess the manoeuvring behaviour of a vessel, IMO rules.

Specific attendance/performance requirements

Attendance at all assigned class times is expected. You are responsible for all information (both academic and administrative) presented during class times. Should you miss a class for whatever reason it is your responsibility to obtain information and content that was missed. Attendance at all laboratory and practical sessions (including any project work) is compulsory. Checks will be made on attendance.
In this unit, your active engagement will be monitored in the following way:

1. Attendance at the tutorial in week 3. Progress towards completing the tutorial questions.
2. Attendance at the tutorial in week 4. Progress towards completing the tutorial questions.

If you do not demonstrate evidence of having engaged actively with this unit by completing these two activities by Week 4 of semester, your enrolment may be cancelled or you may be withdrawn from the unit.

**Teaching and learning strategies**

This unit will be offered in a blended format incorporating learning and teaching activities using the UTAS online learning management system MyLO. Materials and assessments will be provided through the JEE329 MyLO site and it is expected that you have access to the internet. In general, it is expected that students will read ahead before each lecture so that more time can be spent on problem solving during lecture times.

**Work Health and Safety (WHS)**

The University is committed to providing a safe and secure teaching and learning environment. In addition to specific requirements of this unit you should refer to the University’s [Work Health and Safety website](https://www.utas.edu.au/whs) and policy.

All laboratory work requires students to follow WHS requirements stipulated for the areas utilised. Students must wear suitable clothing and safety shoes for the following:

- laboratory session in the Towing Tank
- demonstrations in the Towing Tank and Model Test Basin

**Communication**

News and announcements may be posted to MyLO News, and students will be expected to be aware of the content of such posts within 48 hours of them being posted.

Students are also expected to check their UTAS email very regularly (once a day) for important announcements.

**Concerns and complaints**

The University is committed to providing an environment in which any concerns and complaints will be treated seriously, impartially and resolved as quickly as possible. We are also committed to ensuring that a student may lodge a complaint without fear of disadvantage. If you have a concern, information about who to contact for assistance is available on the [‘How to resolve a student complaint’ page](https://www.utas.edu.au/).
Further information and assistance

More information with regard to content, assessments, grading, GPA etc. is found in the Course Rules Document, available on the AMC website: http://amc.edu.au/ncmeh-course-information

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.

Should you require assistance in accessing the Library, visit their website for more information.