MEng Mechanical Engineering
(including Mechanical Engineering with Acoustical Engineering; Advanced Materials; Aerospace; Automotive; Biomedical Engineering; Computational Engineering and Design; Engineering Management; Mechatronics; Naval Engineering; Sustainable Energy Systems)

MEng Aeronautics & Astronautics
(including Aerodynamics; Airvehicle Systems Design; Computational Engineering and Design; Engineering Management; Materials and Structures; Spacecraft Engineering)

Faculty of Engineering & Physical Sciences
School of Engineering

Programme Handbook (UoSM) for new and continuing students
Disclaimer
This information is issued on the condition that it does not form part of any contract between the University of Southampton and any student. The information given has been made as accurate as possible at the time of publication, but the University reserves the right to modify or alter, without any prior notice, any of the contents advertised. It should therefore be noted that it may not be possible to offer all modules or components of a programme in each academic session. This handbook is available in alternative formats on request.

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Welcome to the Faculty of Engineering and Physical Sciences and the School of Engineering at UoS M. The University of Southampton has a long-established and significant international reputation in teaching and research, and through its Malaysia campus, is now establishing one of the foremost academic centres of excellence for engineering world-wide.

The undergraduate degree programmes in Mechanical Engineering and Aeronautics & Astronautics are offered at Master of Engineering (MEng) level, and have a long-established reputation for excellence at the University of Southampton. You will be studying alongside students of Electrical & Electronic Engineering, as well as those on the Engineering Foundation Year.

As an undergraduate member of the School, you will benefit greatly from being exposed to an intellectually stimulating and challenging environment provided by academics and scholars of the highest calibre, many of whom are internationally-recognised experts in teaching and learning and in their field of research. In later years especially, you will be able to take modules and projects in subjects that are related to research being carried out within their research groups.

Your membership of our prestigious School has not been easily gained, as you have worked hard to achieve the required high entry grades. However, to maintain your membership we also expect you to continue working hard in order to succeed in your studies while you are at the University. It is our responsibility to provide you with the tools with which you are able to learn, in the form of both fundamental and state-of-the-art knowledge and experience in the discipline you have chosen to follow. Although the members of staff within the School will provide help and support for you during your time as a student, it is important that you appreciate that the responsibility for your learning is primarily your own. We trust that you will be willing to take on this responsibility with enthusiasm.

We attach particular importance to ensuring that you are motivated by both your programme and the individual modules you undertake. Each year, or “Part”, of your programme is designed to present you with new academic challenges. Part I mostly covers fundamental engineering topics that are common to many mechanical engineering based disciplines.

Part II contains further discipline-specific topics as well as some more advanced general engineering subjects. It is the year in which the material taught in Part I is expanded and developed to provide the necessary foundation for the specialist subjects in Parts III and IV of your programme. You should also be aware that your academic performance from Part II onwards affects your overall degree classification. Students who succeed in Part II generally succeed in their overall degree. This will, however, require a successful transition from the structured, supervised learning in Part I to the more independent self-learning required in Parts III and IV.

During Part II, you will have to make important decisions about the study programme that you wish to follow in Parts III and IV. This will include the selection of Themes, the option modules within your chosen Theme and Individual Projects for Part III. Relevant information is normally provided before the Easter vacation during Part II. Further selection of a Group Design Project and optional modules appropriate to your chosen theme is made at around Easter-time in Part III, in readiness for Part IV of the MEng programme.

We hope you enjoy the experience of being at University and find your time as a student both stimulating and rewarding.

Professor Neil Stephen, Head of Academic Affairs
University of Southampton Malaysia
The information contained within your programme handbook is designed to provide key information applicable to you and your programme during the 2018/19 academic year. It will complement the University’s Student Portal. You can access the Portal by logging on to SUSSED, using your user name and password, and clicking on the Students tab in the top navigation bar. It is important that you make use of these resources as they support the Regulations relating to your obligations and that of the University while you are a student at the University of Southampton. It also provides helpful information on matters such as housing, finance, leisure, healthcare and support facilities.

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<td>School staff information</td>
<td><a href="http://www.southampton.ac.uk/engineering/about/staff.page">http://www.southampton.ac.uk/engineering/about/staff.page</a></td>
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<td>Programme and module descriptions</td>
<td>Descriptions relating to your programme can be found via the programme pages on the web, and on Blackboard. Your programme structure (i.e. which modules make up your programme) is available in your programme specification and via the on-line programme catalogue which is accessible via Banner Self Service <a href="https://studentrecords.soton.ac.uk/BNNRPROD/twbkwbis.P_WWWLogin">https://studentrecords.soton.ac.uk/BNNRPROD/twbkwbis.P_WWWLogin</a></td>
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<tr>
<td>To find links to broad generic descriptions of the programmes and modules, follow links to your programme starting from: <a href="http://www.southampton.ac.uk/engineering/index.page">http://www.southampton.ac.uk/engineering/index.page</a>?</td>
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1. **General Information**

1.1 **Your Student Office**

**Student Office (UoSM)**
Operating hours:
Monday – Friday: 9.00am to 5.00pm
Saturday, Sunday & Public Holiday: Closed

Contact details:
Tel: +607-560 2560
Fax: +607-560 2561
Email: Stofusmc@soton.ac.uk

**Ben Connell**
Campus Operating Officer
B.J.Connell@soton.ac.uk

**Suganthi Arputhasamy**
Student Office Manager
S.Arputhasamy@soton.ac.uk

Manager of all Student Services operations within the Student Office.

**Admissions, SV Accommodation Liaison**
- **Qurratu Izyan**
  Administrative Officer
  Q.I.Shah@soton.ac.uk

**General Advice, Enrolment, Fees, Time-table, Assessments/Exams, Transition to UK, Student Support Services**
- **Ubaidah Rahamat**
  Administrative Assistant
  N.U.Rahamat@soton.ac.uk

**General Advice, Fees, PTPTN Loans, Time-table, Assessments/Exams, Student Support Services**
- **Ayu Othman**
  Senior Administrative Officer
  n.b.othman@soton.ac.uk

**Student Pass, Visa application**
- **Miza Norizan**
  Administrative Officer
  N.H.Norizan@soton.ac.uk

**Student Office function at UoSM**
The UoSM Student Office is a point of contact for all administrative matters concerning studies and well-being at the campus, and is based on level 1 (ground floor) of the UoSM building. Students should contact the Student Office for general advice, or information regarding enrolment, visas, payment of fees, ID cards, time-tables and classes, submission of assignments, examinations, career destinations, withdrawal or suspension of studies, and transition to the UK.

1.2 **How we keep in touch with you**

**Email**
We will use your University email account to contact you when necessary. We will not use any other email accounts nor social networking sites. It is your responsibility to check your University email account regularly and you must not let your inbox exceed your storage limit. Notification that you are due to exceed your storage limit will be sent to your University email account and you should take immediate action as you will be unable to receive further emails once your storage limit has been exceeded.
Written Correspondence
Formal correspondence regarding your programme of study (e.g. suspension, transfer or withdrawal from programme, academic performance (including progression/referral information), issues of academic integrity, complaints and appeals) will be sent to your term-time (TT) or permanent (PM) address listed as active on your student record. You are responsible for advising the University if you change your permanent or term-time address. The University will not be held accountable if you do not receive important information because you failed to update your student record.

Use of social networking sites
We understand that students are increasingly using social networking sites to interact with members of their student community. You should note that any behaviour that affects other members of the University community or members of the general public in ways which might damage the standing and reputation of the University may be subject to disciplinary action within the scope of the University's Regulations.

1.3 Confirmation of your status as a student and information on transcripts and certificates
The Student Office can provide you with a certificate to confirm your status as a student (e.g. for bank account opening purposes). Please ensure that you give at least 48 hours’ notice of your requirements (longer at peak times such as at enrolment or during the examination periods). Your award certificate will be produced using the legal name data you have provided within your student record. Please make any necessary amendments to your record immediately a change occurs to ensure that your certificate contains accurate information. Changes are made via Banner Self Service.

In accordance with policy, a scale of fees exists for the provision of certificates, transcripts and award certificates. Please see point 23 ‘Transcripts, Certificates and Award Letters’ within the Fees, Charges and Expenses of the University Calendar for a list.

2. Supporting you through your studies
2.1 Supporting students with disabilities, mental health conditions or specific learning difficulties
The UoSM Student Office works in collaboration with the University's Enabling Services in the UK to assist students to access the relevant services as necessary. Enabling Services provides a wide variety of support for students who have disabilities, mental health problems or specific learning difficulties. Its expert team can provide advice and support relating to your studies throughout your time here. Please see http://www.southampton.ac.uk/edusupport/index.page for further information and contact details.

2.2 The role of your Personal Academic Tutor and other key academic staff
The University operates a tutor system to help support and advise students in their academic study. As a student, you can be expected to be allocated a Personal Academic Tutor. Your Personal Academic Tutor may or may not be one of the teaching staff you see in the course of your studies, but their role in this context is to provide advice and support to you throughout your study, and to help review your academic progress. You can expect to see your Personal Academic Tutor at key points through your University career and, if you need to, you can contact them more frequently. Sometimes, your Personal Academic Tutor may refer you to other areas for support. They may refer you to other areas for support. They may refer you to individual support services, or to your Student Office for information, or to a Senior Tutor.

The Senior Tutors are Mrs Emma Mackenzie (ep@isvr@soton.ac.uk), Prof Marco Starink (M.J.Starink@soton.ac.uk), Dr Victoria Watson (V.K.Watson@soton.ac.uk), and Dr Jae-Wook Kim (J.W.Kim@soton.ac.uk). Also Dr Xize Niu (X.Niu@soton.ac.uk) who deals specifically with international students. At UoSM, the Senior Tutor is Professor Neil Stephen (N.G.Stephen@soton.ac.uk). The Senior Tutors will have a more specialised understanding of supporting students, and may support you if you have a particular problem. You can also contact the Senior Tutor if you wish to change your allocated Personal Academic Tutor.

The University expects that you will engage with your Personal Academic Tutor, attend the scheduled meetings, respond to messages from your Personal Academic Tutor, and notify your Personal Academic Tutor (or Senior Tutor, if you prefer) if you are experiencing problems which are affecting your performance, attendance or progress in your studies. In particular, you should contact your Personal Academic Tutor if you feel your performance in any forthcoming examinations will be affected by ill health or other special considerations, and check with your Personal Academic Tutor if you plan to cite him/her as a referee for job applications.

2.3 Student buddyng and mentoring schemes
Buddy scheme for University of Southampton Malaysian (UoSM) students who will be moving to Southampton in September 2017 for Part III
Buddies are on the same Programme and Year as the University of Southampton Malaysian Campus students. The purpose is to help UoSM students to effectively transfer to living at Southampton and to study as a part of a much larger cohort. Online support using Facebook begins around May for the transitioning cohort, and this is then largely replaced by face to face support when UoSM students arrive on campus in September. The School provides formal support and coordination for the scheme until the end of November.

2.4 What to do if you are ill
It is important that your doctor (as well as your Personal Academic Tutor) is immediately informed of any illness that is likely to affect your studies. If appropriate your GP may inform your Personal Academic Tutor that you are experiencing some health difficulties that may affect your academic performance. This will be done with your consent and you may wish the details of your illness to be withheld from your Personal Academic Tutor, although
you should think carefully about this (your tutor will, in any case, respect your privacy). More information can be found in the General Regulations - Attendance and Completion of Programme Requirements.

2.5 External factors affecting your attendance or performance in your studies
We expect you to take responsibility for your studies to ensure that your full academic potential can be realised. However, sometimes difficulties can arise that can affect you.

If you are absent from an examination or other assessment or have other grounds for believing that your studies have been affected by external factors you must bring this to the attention of your Personal Academic Tutor or to the Student Office immediately. Whilst we recognise that students can sometimes be reluctant to discuss cultural, sensitive or personal issues, it is essential that you bring problems affecting you to our attention so that we can determine how best to help you.

Attendance at events and impact on assessment
Where a student wishes to prioritise another activity over attendance at a scheduled assessment the School Policy for Attendance at events and impact on assessment applies. A copy of the policy can be obtained from the Student Office.

For scheduled assessment worth 30% or less of the total module mark the student will receive no mitigation if they decide not to attend the assessment session.

For assessments worth >30% of the module mark it is the responsibility of the Director of Programmes to decide whether to permit mitigation and what form this mitigation should take.

It is expected that the number of single assessments that a student misses which fall within this category would be very small.

It is possible that mitigation will be allowed for events benefiting the University in terms of reputation, e.g. participation in international competitions; events the University may use as significant publicity opportunities; events benefiting the student in terms of employment e.g. internship interviews.

Mitigation will not be allowed for events such as holidays or to pursue hobbies.

In all cases, permission to miss the assessment must be requested by the student at least 10 working days prior to the original date of the assessment.

2.6 Special considerations
If you believe that illness or other circumstances have adversely affected your academic performance, this is known as Special Considerations. If you wish for these to be considered by the Board of Examiners you must complete a Special Considerations form. It is important that you submit this to your Student Office within the timescales provided to you. All claims must be substantiated by written documentary evidence, for example a medical certificate or GP/consultant letter, self-certification or a statement from your Personal Academic Tutor. The purpose of asking for supporting documentation is for you to be able to corroborate the facts of your submission.

All claims will be reviewed by the Special Considerations Board (SCB) which meets at key points throughout the year. The Student Office will contact you via your University email account to let you know once approval has been made.

Full details of the University's policy on Special Considerations can be found at http://www.calendar.soton.ac.uk/sectionIV/special-considerations.html

2.7 Fitness to Study
The Fitness to Study policy applies to enable the University to respond appropriately to situations where visible signs of illness, mental health difficulties, psychological, personality or emotional disorders may have a profoundly disturbing impact on the functioning of an individual student and or the wellbeing of others around them. The University has a positive attitude towards those with impairments and is committed to maintaining students’ wellbeing. The policy identifies the procedure and support available to both students and staff when a student becomes unwell and/or presents a risk to self and/or others.

2.8 Suspending your studies
Should you feel that you need to take some time out from your studies, known as suspending your studies, you should first discuss this with your Personal Academic Tutor. A Suspension Request form should be obtained, completed and returned to the Student Office. Please note that, if you wish, you can suspend your studies in order to undertake an internship or period of industrial training outside of normal vacation time.

For International students, if you wish to suspend your study, the University has an obligation to inform the Ministry of Education (MoE) within 7 working days. You should make arrangements to leave Malaysia as soon as possible, as once Immigration have been informed that you are no longer actively studying, they may take action to curtail (or cancel) your visa.

You should send a copy of your flight ticket to the Student Office – stofusmc@soton.ac.uk. The university can then keep this on your record so that if necessary we can prove to MoE/Immigration that you have left the country.
Once you are ready to return to Malaysia to resume your studies you should contact the Student Office so that a new application for an international student pass can be made from your home country.

Please note that we are unable to process requests for retrospective suspensions. The University is only permitted to suspend you from the first date we are notified of your absence. If you leave Malaysia or are unable to attend for any reason you should inform the Student Office immediately.

2.9 Withdrawning from your programme
If you no longer wish to continue with your studies, a Withdrawal Notification form should be obtained, completed and returned to the Student Office. Further information can be found in the General Regulations - Transfer, Suspension, Withdrawal and Termination

The Students’ Union Advice Centre has developed a Guide for students.

3. Your Safety
3.1 Health and Safety Policy
The Local Organisation and Arrangements Document can be found on the Health and Safety Resource which should be in your course list when you log on to Blackboard. This contains all the specific Faculty information concerning Health and Safety and working hours. Everyone is required to access the Local Organisation and Arrangements Document at their earliest opportunity.

3.2 Access to UK Campus Buildings
The Local Organisation and Arrangements Document can be found on the Health and Safety Resource which should be in your course list when you log on to Blackboard. This contains all the specific Faculty information concerning access to buildings on the UK campus.

3.3 Information for UoSM - Location of Fire Assembly Points
The UoSM Fire Assembly Point is located in the Car Park in front of the campus building. If a continuous alarm sounds, leave the building by the nearest available exit, closing doors as you leave. Make your way to the assembly area. Do not use lifts. Do not return for personal items or re-enter the building until you have been instructed that it is safe to do so.

Special Assistance
Please inform the Student Office and your tutor if you will require special assistance in the event of an emergency or evacuation.

Student Safety
Ensuring student health and safety is paramount to the University and to make sure you have a great student experience. You are responsible for your own safety as well as the safety of others, so please take careful note of all information provided to you whilst studying at the Malaysia Campus.

4. Your Academic Programme
4.1 The academic year and the programme structure
The structure and modular content provided within the programme specification is specific to your own programme. You can view the most up to date version of the programme specification by accessing the Unistats website or SUSSED. The taught components of the programme are delivered in modular form and typically run over two semesters. The teaching weeks are followed by a two to three week examination period. The semesters overlap the traditional three term structure which still determines the pattern of vacations at Christmas and Easter.

For any given programme a module is either core, compulsory, or may be taken as an option. The definitions of the first two are provided in the General Regulations - Regulations and Definitions Applying to Progression for all Credit-Bearing Programmes. Your student record will automatically record core and compulsory modules and these must be completed in accordance with the requirements for progression applicable to your programme.

Core, compulsory and option modules for all degree programmes are listed in the Programme Specifications. All pre-requisites and assessments are documented in the module specifications. Specifically, all Part I required assessments must be passed at the pass mark. Part I required assessments must be successfully completed and passed before Part II may be commenced.

The progression regulations are as given in the University Calendar, Section IV and should be read in conjunction with the regulations for the Faculty of Engineering and Physical Sciences found in Section VI

4.2 Registration and amendment to option modules
Most programmes will have a number of option modules. If applicable you will need to select a certain number of option modules to complete your portfolio of modules and fulfil the credit points as required for the programme. The structure and modular content provided within the programme specification is specific to your own programme. You can view the most up to date version of the programme specification through the SUSSED portal, from within the student information section.
The most up to date description of the content is in the Programme Catalogue, which can be accessed via SUSSED using the Banner Self-service facility. 
https://studentrecords.soton.ac.uk/BNNRPROD/twbkwbis.P_WWWLogin

When choosing your options, you are strongly advised to ensure that you have a similar total number of modules in Semester 1 and Semester 2, to maintain a balanced work load throughout the year. Once you have registered your options, it is possible for you to make changes but there are restrictions. The substitution of modules is not allowed (i.e. you cannot take an extra module in Semester 2 to replace a Semester 1 module in which you failed to perform well).

You may request a change to your option module choice up to the end of Week 2 of each semester. You should complete a Change of Module form to specify your request (forms can be obtained from the Student Office). If your option module choices clash in your timetable, then you will need to amend your option choice accordingly by contacting the Student Office immediately.

You should regularly check your online student record for details of your registered modules. This is particularly important after you have made any changes and will help to maintain the accuracy of your student record. It will also save time and confusion during the examination period.

4.3 Attendance
The University attendance regulations details the University’s expectations relating to attendance. You should also note that within the School of Engineering, lab attendance is mandatory and will be monitored. In addition, you should note that attendance and engagement with all assessment activities is mandatory and is monitored. The Student Office can provide the School policy for ‘Attendance at events and impact on assessment’ see 2.5 above.

It is mandatory to attend the transition activities in the UK at the beginning of Part III, which require you to arrive in the UK at a specified date.

4.4 Additional Costs
Students are responsible for meeting the cost of essential textbooks, and of producing such essays, assignments, laboratory reports and dissertations as are required to fulfil the academic requirements for each programme of study. General programme costs are located in the programme specification. Modules that are optionally available to select may also include information on module specific costs.

4.5 UoSM Key Dates

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<td>Semester 1</td>
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<td>Semester 2</td>
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<td>Christmas Break</td>
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<td>Semester 1 Exams</td>
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<td>Study Break</td>
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<td>Mid-Semester Break</td>
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<td>Study Week</td>
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<td>Semester 2 Exams</td>
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<th>Public Holidays</th>
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<td>Almarhum Johor Hol Day</td>
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<td>Deepavali*</td>
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<td>Prophet Muhammad’s Birthday</td>
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<td>Christmas</td>
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<td>New Year</td>
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<td>Thai Pusam</td>
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<td>Chinese New Year*</td>
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<td>Labour Day</td>
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<td>Beginning of Ramadhan</td>
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<td>Wesak Day*</td>
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<td>Hari Raya Aidilfitri</td>
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5. Teaching and Learning Skills

5.1 Time management
It is your responsibility to manage your time in order to ensure that you keep up to date with the material presented and with the requirements of the programme. Deadlines for work submission should be adhered to, otherwise marks will be deducted via the imposition of a late submission penalty. The framework of when lectures and classes occur and deadlines for submission of work will be made available to you well in advance, but if you are unclear about any aspect of your module you should talk this through with your module lead or Director of Programmes. This knowledge will allow you to plan your life based on how you know you work best. Effective use of your time will allow you to perform well on your course and to enjoy student life. One of the work-place skills you should aim to acquire at University is the ability to manage multiple priorities. If you have problems in this area please discuss them with your Personal Academic Tutor.

5.2 Lectures
A single lecture slot lasts 45 minutes. It is therefore vital that you arrive promptly in order to gain maximum benefit from the time. Each lecturer will present material either using handouts or will require you to make your own notes. Transcribing lectured material into a form that you find most useful is an important part of the learning process. You should ensure that you understand the material and, if you have difficulty in understanding or applying the knowledge, use recommended textbooks or the assistance of teaching staff during tutorials to gain understanding. It is your responsibility to develop your ability in a given subject. How well you have acquired that ability and the associated knowledge is gauged by the examination and coursework assessment process. Lectures are provided for your benefit and you should take full advantage by ensuring you attend all of the lectures in a given course module. If, for any reason, you are unable to attend, ensure that you get hold of a copy of the notes or handouts from your module lead.

5.3 Use of electronic recording devices or mobile phones in lectures or classes
Out of courtesy to staff and other students, please ensure that mobile phones are switched off in lectures and seminars. You are advised that lectures are the copyright property of the lecturer and permission to audio-record a lecture must be personally sought from the lecturer before proceeding.

If you wish to use a lap-top computer to take notes in a lecture, you should do so in a way that does not cause disruption to those sitting near you.

If you have a health condition for which additional support is needed, you may, following assessment by the University’s educational support services, make appropriate arrangements with staff for recording lectures.

5.4 Tutorials/supervisions
Group tutorials/supervisions are timetabled for some modules. These sessions are intended for you to develop your problem solving skills as well as for you to discuss further with an experienced member of staff any particular lecture material you are finding difficult to understand. It is essential that you come well prepared for these sessions. These sessions are one of the most effective ways of reinforcing the lecture material.

5.5 Labs
Labs are timetabled for some modules. You may be provided with a specific lab timetable which you should follow and ensure that you attend all labs, as these provide valuable learning and assessment activities and are a mandatory part of your course.

Please see further programme specific information on Laboratory requirements in the Appendix.

5.6 Independent or Self learning
Independent study or self-directed learning involves using libraries, data retrieval systems, internet, etc, or in a group working on coursework, reading the lecture material or reading around the subject. This should also develop your investigative and problem solving skills in furthering understanding of the subject, creating links with other modules - past and present - and providing a broadening of your educational experiences and knowledge base. Refer to the module profile for information on contact hours and the amount of time spent on independent study (1CATS credit = 10 hours)

Self-learning is your personal responsibility and your commitment to the programme. It requires discipline, motivation and focussing on achieving individually set targets. It enables you to reach your full potential academically, develops your personal skills and helps establish a successful professional career.

5.7 Key skills
Key skills are those skills which can be applied to other disciplines and fields of work. Employers are increasingly seeking to employ individuals with well-developed key skills. More can be found on the Academic Skills pages of the library website.

5.8 Policy on referencing
The University expects that all students will familiarise themselves with the following website http://library.soton.ac.uk/sash/what-is-academic-integrity / Academic Integrity Guidance for Students
There are additional resources available on Blackboard to support understanding on referencing and plagiarism. 
https://blackboard.soton.ac.uk/bbcswebdav/courses/SST-05-06/writing/understanding_plagiarism.html
https://blackboard.soton.ac.uk/bbcswebdav/courses/SST-05-06/writing/identifying_plagiarism_and_avoiding_poor_practice.html
https://blackboard.soton.ac.uk/bbcswebdav/courses/SST-05-06/writing/avoiding_plagiarism.html
https://blackboard.soton.ac.uk/bbcswebdav/courses/SST-05-06/writing/introduction_to_quoting_and_paraphrasing.html
https://blackboard.soton.ac.uk/bbcswebdav/courses/SST-05-06/writing/using_quotations.html
https://blackboard.soton.ac.uk/bbcswebdav/courses/SST-05-06/writing/a_strategy_for_effective_paraphrasing_and_summarising.html

There is no particular policy on referencing, as you will need to learn to be flexible with your referencing style dependent upon the demands of your discipline. You may wish to familiarise yourself with Endnote, JabRef, Mendeley although it is not a specific requirement that you use any of these tools. If you have any doubts about whether you are adequately referencing your work you should seek guidance from your lecturer or Personal Academic Tutor.

5.9 Academic integrity
The University expects that all students will familiarise themselves with the Regulations Governing Academic Integrity which include the Academic Integrity Statement.

The Students’ Union Advice Centre has developed a Guide for Students / Academic Support for students.

5.10 Part I workshop practice
Throughout your programme you will come across terms and concepts that relate to basic manufacturing methods. Thus it is a requirement of your degree accrediting institution that undergraduates are provided with a practical grounding in manufacturing techniques. Such training, together with experience of advanced CAD/CAM, will be provided in Part I, usually in the week following the final exam period. In addition there will be some workshop training given at Southampton City College; this is currently scheduled to take place after the Semester 2 examination period. The workshop practice forms part of the Part I Design & Computing module (FEEG1001). For UoSM students these activities are scheduled at the beginning of Part III. It is therefore essential that you attend the transition activities scheduled prior to your commencement of Part III.

6. Assessment and Examinations
6.1 Coursework assessment and submission
A number of modules include coursework assignments as part of the overall assessment. Coursework can often occupy a large amount of time. It is worth noting that getting a few extra marks on an assignment may not justify the extra time spent. Conversely, students who forget or do not bother to hand in work can make it very difficult for themselves to achieve their full academic potential.

Normally, all coursework should be accompanied by a completed Coursework Submission/Feedback form and submitted to the Student Office by 4.00pm on the published submission deadline. If both paper-based and electronic submission is required, you should note that your submission will not be considered complete until both formats have been submitted. If other arrangements are in force for submission of a particular piece of coursework, this will be advised by your module lead.

6.2 Penalties for late coursework submission
When coursework is set a due date for submission will be specified and there will be associated penalties for handing in work late.

The University has a uniform policy for the late submission penalty for a piece of assessed work worth 10% or more of the final module mark.

Work submitted up to 5 days after the deadline should be marked as usual, including moderation or second marking, and feedback prepared and given to the student. The final agreed mark is then reduced by the factors in the following table.

<table>
<thead>
<tr>
<th>University Working Days late</th>
<th>Mark</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>(final agreed mark) * 0.9</td>
</tr>
<tr>
<td>2</td>
<td>(final agreed mark) * 0.8</td>
</tr>
<tr>
<td>3</td>
<td>(final agreed mark) * 0.7</td>
</tr>
<tr>
<td>4</td>
<td>(final agreed mark) * 0.6</td>
</tr>
<tr>
<td>5</td>
<td>(final agreed mark) * 0.5</td>
</tr>
<tr>
<td>More than 5</td>
<td>Zero</td>
</tr>
</tbody>
</table>

6.3 Coursework extensions
If you know there will be a valid reason why you cannot submit the work at the given date you must contact the Student Office as soon as possible. You should complete a Special Considerations form, which should provide adequate detail of the reasons why you are seeking an extension. Your completed form should be submitted to the Student Office who will arrange for your request to be reviewed and approved. The Student Office will contact
you via your University email account to let you know once approval has been made. **It is your responsibility to request an extension in a timely manner.** See paragraphs 2.5 and 2.6 above.

### 6.4 Examination preparation (also see Appendix B)
You will know yourself how best you prepare for examinations. It is always worth remembering that the sooner you start your preparation the better and that one of the aims of each module is to help you prepare for the examination. Make sure that you have a complete set of notes; that you understand their content; that you can apply the material by solving the example sheet questions; and that you have practiced questions from past papers under examination time constraints. The University's online archive of previously set examination papers is available to assist with your learning and preparation for forthcoming examinations.

*Past Exam Papers* are available via the library.

Remember that if you get into difficulty during your revision process on a particular subject ask someone to help you. This may be either one of the lecturers or teaching assistants on the module. For helpful hints on revision strategy and examination techniques, please refer to Appendix B.

### 6.5 Examinations
The dates of University examination periods are published annually on the [exam timetables web page](#).

When students repeat modules externally, it may be impractical for them to undertake the normal assessment activities, for example assessed laboratory or group work. In such cases where external repeat is permitted, the Board of Examiners will provide an alternative but equivalent form of assessment which will meet the required learning outcomes.

### 6.6 Illegible exam scripts
If your examination script is considered illegible, the Illegible Examination Scripts Policy will be instigated. You will be asked to come in to dictate your script so that it can be transcribed.

The cost of this work will be met by you. If your script is not transcribed then it will receive a mark of zero (0).

### 6.7 Coursework and examination feedback
Feedback comes in many forms and you must learn to recognise the merits of all of these. The [Student Feedback Policy](#) provides an overview of formal feedback. Formal feedback is well documented and the following paragraphs identify ones that you are officially entitled to. Informal feedback is just as important and comes in the form of individual chats with your Personal Academic Tutor, module leads or project supervisors, or group meetings with academics after a lecture or practical session. Also tests and quizzes on Blackboard, which are available for several modules, can provide valuable feedback on how you are progressing.

All coursework will be marked and returned to you, accompanied by feedback which will relate to the standard of your work and the reasons for the mark/grade given. You should note that all marks are considered provisional until they have been reviewed and confirmed by the Board of Examiners. This feedback will typically be returned within four weeks following your submission. Large assignments (e.g. your dissertation/project work) will take longer to be returned. Bear in mind that if you hand in work late, your feedback will be delayed.

Where appropriate, for example with smaller problem solving exercises like calculations, the lecturer will decide if feedback should be given individually, or reported back to the whole group. You are, however always free to ask the lecturer personally how you are progressing.

### 6.8 Access to coursework/examination scripts
Students are entitled to view their examination scripts on request to the Student Office. You are only permitted to view an examination script to enable you to see how you can improve your future performance and no mark or other annotation on the script is negotiable or open to alteration. The absence of annotation on a script does not mean that it has not been marked.

### 6.9 Release of results
Students will be given, as a matter of course, the marks they obtain in each individual module of study after they have been ratified by the Board of Examiners. More information can be found in the [Release of Marks procedure](#).

You should note that the official transcript of your marks would normally show the latest mark obtained in each subject with a note, where appropriate, that it was obtained at repeat or referral attempt.

### 6.10 Prizes
Each programme group has a number of prizes, which *may* include prizes for each Part, project prizes, and overall performance prizes. Details of new prizes will generally be announced by e-mail.

### 6.11 Final assessment
At the end of your programme, your overall performance will be assessed.

If you satisfy the academic standards necessary, the examination board will recommend you for award.
7. **Staff/Student liaison: getting your voice heard**

**7.1 Module Survey**

The School aims to consult with and to provide opportunities for all students and staff to make their views known. You are encouraged to offer your comments/suggestions to members of staff and feedback is requested for each module undertaken. Module Survey forms can be completed online and details of how to do this will be communicated to you during the academic year.

Module Survey outputs are considered by Education Boards and by School Programmes Committee, where your nominated student representative has the opportunity to discuss specific issues raised and actions taken.

**7.2 Module Reports**

Your feedback to module surveys will be reflected upon by the module leader and will be included in the Module Report. Modules reports are available via SUSSED under the ‘programme specific information’ tab.

**7.3 Staff Student Liaison Committees**

Staff-Student liaison committees have representatives from across each programme. These committees have the role of monitoring the organisation and management of the student programmes, to note any difficulties that students may be encountering, and to take advice about ways of improving the programmes.

**7.4 Student Representation**

The Malaysia campus has a single Staff Student Liaison Committee which considers matters related to UoSM. The UoSM SSLC reports directly to the relevant Faculty Boards. When you transition to the UK campus, this is arranged through the Students’ Union. You will be invited to elect your School representatives (Academic Presidents, Academic Vice-Presidents and Course Representatives) who co-ordinate the student voice on School committees to enable your voice to be heard.

More information on the Students’ Union officers and their roles is available on the Students’ Union Representation webpages.

8. **Careers and Employability**

The [Careers and Employability Service](https://www.southampton.ac.uk/careers) provides support to students at all levels of study and has a range of opportunities on offer. We provide drop-in advice, 1:1 guidance, workshops, skills sessions, Careers Fairs and employer led events to support your career planning as well as the following opportunities:

**8.1 Excel Southampton Internships**

The [Excel Southampton Internship Programme](https://www.southampton.ac.uk/careers) offers 4-12 weeks paid internships which enhance your CV, expand your network and open graduate recruitment opportunities.

**8.2 Business Innovation Programme**

The [Business Innovation Programme](https://www.southampton.ac.uk/careers) provides an opportunity to develop your business acumen, team working and problem-solving skills by working on an 8 week project put forward by local businesses or not-for-profit organisations.

**8.3 Year in Employment Placements**

The [Year in Employment](https://www.southampton.ac.uk/careers) is a work placement of up to 12 months duration taken after your second year of study enabling you to develop the skills employers value and gain insight to an industry of your choice. Eligibility criteria is available here please check before applying.

**8.4 Volunteering Bank**

[Volunteering](https://www.southampton.ac.uk/careers) is a great way to help you gain many of the skills employers are looking for, build your network and develop yourself in new ways. Opportunities may vary in duration and the type of role advertised.

**8.5 Enterprise**

Whether you want to develop your own start-up or make a real difference from within an existing organisation, enterprise skills are essential to working life and highly valued by employers. The University of Southampton’s Student Enterprise Team support all students in developing their enterprising and entrepreneurial skills. Click here to find out more about opportunities and support.

**8.6 Career Readiness Test**

Developed especially for University of Southampton students and graduates, our Career Readiness Test will give you an insight into your career planning. Research shows that students who are more self-aware and clear on their career strengths feel more confident in their ability to succeed in the future.

The test is for everyone. Take the test to:

- Understand where to start
- Reflect on your strengths and areas for development
- Recognise what makes students most employable
- Structure your thinking
- Identify priorities for action

Just go to [https://www.southampton.ac.uk/careers](https://www.southampton.ac.uk/careers) and click on the Graduate Capital Model to find out more.
8.7 Employability events within the School/Faculty
The Careers and Employability Service work closely with departments and Faculties to provide targeted careers support within and alongside your curriculum. Activities and opportunities may appear within the timetable, or be advertised within your School/Faculty. Examples include lectures and workshops, online learning options, and events featuring alumni/employers. There are often opportunities to connect with organisations that offer themed events focussed on employability. Some companies offer projects linked to dissertations or specific research.

You will be enrolled on the Faculty wide Blackboard, “FEPS Student Employability”. This site is used to let you know about specific events, jobs and study opportunities which are particularly targeting students from your subject. It also includes a folder of job search resources and an employer database which you can search by subject.

Careers staff linked to your subject will attend Staff Student Liaison meetings, so you can make suggestions via your student representative for additional careers and employability activities.

Employability events at UoSM
There will be a range of employability events/seminars from industry partners throughout each of your academic years. Details of these will be e-mailed to you, and notices displayed on the ground floor noticeboard. A list of companies that offer internships across Malaysia is also displayed in the resources room. This list will also be updated and circulated on an annual basis via e-mail.

8.8 Professional Accreditation
Please use the following link for the professional accreditation offered for your Programme.
http://www.southampton.ac.uk/engineering/undergraduate/study/accreditation.page

9. Further study opportunities
Perhaps you are considering postgraduate study. There is a wide range of programmes leading to various qualifications available to you, and selecting the appropriate programme may not be easy. The first thing to realise is that you need to make a well informed decision and therefore the key is to obtain all the information you need.

The Faculty always aims to retain its best and brightest students for research. However, when collecting information about postgraduate studies, you should cast your net wide. You need to select an area that interests you – a difficult task in itself because you will also seek an area that has good employment prospects. There is also the choice between taught postgraduate programmes leading towards a Master of Science (MSc) and/or research postgraduate degrees (MPhil or PhD).

Further details on the programmes offered by the Faculty of Engineering and Physical Sciences can be found on the Faculty’s website.

10. Regulatory Issues
We hope that you will be satisfied with your experience during your time as a student at the University of Southampton, but we do recognise that on occasion things can go wrong. If you have a concern about any aspect of your experience at the University we encourage you to raise it as soon as the concern arises. It is always better to let us know that you feel there is a problem as soon as possible so that the matter may be resolved quickly. You may alternatively wish to consult with your student academic president if it is an issue in common with other students. Please be reassured that you will not suffer any disadvantage or recrimination as a result of raising a genuine concern, complaint or appeal.

10.1 Academic appeals
Provided you have grounds, you may appeal against some decisions made by the University. There are some exceptions and you should note you cannot appeal against a decision that has been made in the proper exercise of academic judgment. The Regulations Governing Academic Appeals by Students outlines the regulations and procedure that should be followed should you wish to make an academic appeal.

The Students’ Union Advice Centre has developed a Guide to Academic Appeals / Academic Support for students.

10.2 Student complaints
The Regulations Governing Student Complaints sets out the process that should be followed should you wish to raise a complaint about a matter relating to either the facilities or services provided by the University, its academic programmes, and/or the conduct of University staff which has materially affected you.

10.3 Dignity at work and study
The University's Dignity at Work and Study Policy applies to the conduct of staff and students, in the context of their University work or study, or which otherwise affects the working, learning or social environment of the University. Fair criticism of staff or student performance or conduct will not be considered to be bullying or harassment provided that those involved are treated with dignity, courtesy and respect. Any allegation of harassment, bullying or victimisation will be treated seriously, regardless of the seniority of those involved, and anyone found to have behaved unacceptably may be the subject of disciplinary action up to and including dismissal or expulsion.
10.4 Student Discipline
As members of the University community, all students are expected to conduct themselves with due regard for its good name and reputation and are required to comply with the University's Regulations at all times. Any allegation of misconduct will be considered within the Student Discipline Regulations in accordance with the evidence and circumstances presented. Information for students on discipline is available from the Student Services website.

11. Training, Sponsorship and Employment
It is never too early to devote thought to your future career direction, although when you start your degree, the decisions may seem years away. However, time will pass quickly, and you will be in a better position to pursue your future ambitions if you have a career focus to your studies. The Careers and Employment service will be able to help guide you in career choice.

Engineering offers a challenging and rewarding career. Employment opportunities are available in a wide range of areas; virtually any industrial organisation will employ engineers, and the education you have received also opens up other routes such as research, teaching, the armed forces or the financial service industries. Other graduates decide to continue their studies by entering postgraduate instructional/research programmes at Southampton and other universities. Past experience confirms that Southampton graduates are in a very competitive position when seeking career opportunities.

As part of your professional development, we encourage you to obtain industrial experience and training before, during and after your university programme. This will usually also count towards the industrial experience required by the Engineering Council for Chartered Engineer status.

All students are encouraged to undertake industrial periods in the long vacations before third and/or fourth years. As well as the experience, you get paid, and this substantially increases your chances of finding a job rapidly. For those students who are sponsored, this will often be with their sponsor.

If you are interested in a longer period, it is possible to take a year out of the programme; after the second year is quite common. Employers are increasingly looking for students at this stage: they can be of real use to them, and they get a look at them before the recruitment round the following year. If you wish to do this, you need permission from the Faculty (approach your personal tutor in the first instance). The one hazard is that there could be changes in programme structure or syllabus while you are away, and you may find you have to do some extra ‘matching’ work on your return. Note that such absence must be for a whole number of academic years (October to September). You cannot take part of a year, nor a year spanning two academic years.

Finding temporary or permanent employment is your individual responsibility, but we can provide much assistance. We maintain contacts with many companies seeking students. The Industrial Liaison Tutor Dr Richard Wills (rgaw@soton.ac.uk), maintains a list of company contacts and opportunities for placement, as does the UoS Student Office for students at the Malaysia Campus. Please contact them for up-to-date information. A significant number of students obtain formal sponsorship from a company before or during the programme. We can help you to find such positions.

Also, the University's Careers and Employment service provides a comprehensive professional service, which includes both temporary and permanent posts. You should make contact with them to discuss initial ideas early in your programme (during Part I), and then call on them from time to time thereafter.

The experiences of some past graduates are given on our website at http://www.southampton.ac.uk/engineering/undergraduate/our_students.page.
Appendix - Programme Specific Information – Mechanical Engineering

A1 Introduction to Mechanical Engineering

Mechanical Engineering is a challenging and exciting subject that covers a wide range of technical activities including the design of machines, conversion of energy, manufacturing processes, medical engineering, engineering materials and microsystems technology.

Mechanical Engineering has been taught at Southampton for over 60 years. The current programmes are designed to provide a sound basis in engineering science and design through a wide range of industrial applications and examples. The Mechanical Engineering degree programmes make use of the many facilities available in the Faculty of Engineering and Physical Sciences including a recently refurbished workshop complex. Engineering Sciences was awarded top grades in the last Research Excellence Framework and this reflects the level of expertise in the specialist groups.

Mechanical Engineering students have been prominent in many aspects of university life both professional and social including being President of the Students Union. There is an active Young Members section of the IMechE based at the University who organise talks and visits to local industry.

A2 Philosophy and aims of the Mechanical Engineering programmes

The Mechanical Engineering programmes provide a flexible structure that allows students to choose a specialist theme yet at the same time provides a common framework that ensures all aspects of core mechanical engineering are covered. The first two years concentrate upon the fundamentals of engineering as well as the skills and understanding necessary for using information technology in an engineering context.

The Mechanical Engineering programmes consist of four parts, I through IV, each of which is undertaken over one year. Parts I and II are common to all themes whereas Part III and Part IV are determined by the choice you make at the end of Part II. Progression to Part IV (MEng) is dependent on satisfactory performance at Part II and Part III. If you choose to leave at the end of Part III you can graduate with a BEng degree. The final degree awarded at the end of Part IV is the MEng. This degree is designed to give a broader coverage of fundamental engineering subjects within the context of mechanical engineering.

A feature of the BEng and MEng Mechanical Engineering programmes is the opportunity provided for you to tailor your studies to fulfil your own individual aspirations. Many students focus their degree studies on one specific aspect of mechanical engineering, by careful selection of a topic-related set of options. Themes available are:

- Acoustical Engineering
- Advanced Materials
- Aerospace
- Automotive
- Biomedical Engineering
- Computational Engineering and Design
- Engineering Management
- Interdisciplinary
- Mechatronics
- Naval Engineering
- Sustainable Energy Systems

Once you choose a theme, this determines the main content of Parts III and IV. You have one or two free options in Part III and an even wider spectrum of choice in Part IV. Your tutor will be able to assist you in the choice of a suitable balance of subject options that reflect your personal interests, abilities and aspirations.

In Part III you will also undertake an Individual Project which allows you to carry out an in-depth investigation on a specialised topic using analytical and/or experimental methods. In addition, a major part of the fourth year is the Group Design Project, which is carried out in small groups.

A2.1 BEng Mechanical Engineering

This 3-year programme covers all the traditional core subjects of mechanical engineering, which include Mechanics of Solids and Fluids, Dynamics, Thermodynamics, Design, Materials, Manufacture, Electrical Systems, Computing, Control, and Management.

As in all the programmes, there is an increasing emphasis on discipline-specific subjects as you progress through your degree. In each year there are design-related activities, which are carried out either individually or (more usually) in groups. In Part III you will undertake an Individual Project (which allows you to investigate a specialised topic independently and in depth), core subjects taken at a more advanced level (e.g. Design and Management) as well as taking optional modules, which are selected from a wide range on offer. You may also take modules in non-discipline specific subjects (e.g. Industrial Law, Human Factors in Engineering, and Foreign Languages). The options chosen can reflect your particular interest or you can preserve a broad Mechanical Engineering flavour.
A2.2 MEng Mechanical Engineering
The first three years of the MEng programme are common with the BEng programme. However, if you intend to study for the MEng, on entering Part III you will be asked to select one of the following themes, each of which has a particular set of aims and activities associated with it. In your final year (Part IV) you will study a selection of specialist masters-level modules, including an advanced management module. In addition, you will take part in a substantial Group Design Project.

A2.3 MEng Mechanical Engineering with Acoustical Engineering
Noise and vibration performance of many engineering designs is critical to their success. This theme exploits Southampton’s international reputation in acoustics to enable you to develop an expertise in acoustical engineering, while maintaining a broad-based engineering background associated with Mechanical Engineering. In particular, the theme will focus on acoustics, noise control, vibration and signal processing.

Upon completion of the theme, you will have demonstrated an understanding of acoustic engineering through a variety of modules at an advanced level as well as studying engineering to a high standard both individually and in a team.

A2.4 MEng Mechanical Engineering with Advanced Materials
The selection of appropriate materials in design and manufacture, along with an understanding of how those materials behave in service is fundamental to Mechanical Engineering. This theme includes modules on materials in design, manufacture and service. You will study advanced materials options which will provide you with in-depth knowledge of the in-service properties of a range of materials, including composites. The theme includes modules on the specialist use of materials in transport applications and biomechanical engineering. You will also have the opportunity to study modelling of material behaviour, an essential ingredient of engineering design, at an advanced level.

Upon completion of this theme, you will have demonstrated an understanding of materials and their in-service behaviour at an advanced level as well as studying engineering to a high standard both individually and in a team.

A2.5 MEng Mechanical Engineering with Aerospace
Engineering Sciences has an international reputation in aerospace engineering and Southampton has been offering aeronautics or aerospace degree programmes since the 1930s. This theme allows you to develop an expertise in aerospace systems while maintaining the broad based engineering background associated with Mechanical Engineering. In particular, the courses will focus on aircraft aerodynamics, propulsion, avionics and structural design.

Upon completion of the theme, you will have demonstrated an understanding of aerospace systems through a variety of modules at an advanced level as well as studying engineering to a high standard both individually and in a team.

A2.6 MEng Mechanical Engineering with Automotive
This theme exploits Southampton’s excellence in research across a wide range of automotive disciplines to offer specialist modules designed to prepare you for a career in the automotive sector. You will study a number of modules covering fundamentals of vehicle design, vehicle dynamics, propulsion, structural design, automotive electronics and control.

Upon completion of the theme, you will have demonstrated an understanding of automotive systems through a variety of modules at an advanced level as well as studying engineering to a high standard both individually and in a team.

A2.7 MEng Mechanical Engineering with Biomedical Engineering
Bioengineering is a broad discipline covering all aspects of engineering related to either medicine, in terms of the development of medical devices, or the human body, in terms of how we interact with devices and the detrimental effects they may have on us. This theme provides insight into the mechanics of the human body, as well as the challenges in developing devices that are either implanted within the body or interact with it. In particular, this theme will focus on orthopaedic biomechanics and the issues related to materials selection and design of devices, as well as methods available to assess their performance.

Upon completion of the theme, you will have demonstrated an understanding of biomedical engineering through a variety of modules at an advanced level as well as studying engineering to a high standard both individually and in a team.

A2.8 MEng Mechanical Engineering with Computational Engineering and Design
This theme exploits Southampton’s excellence in advanced computational engineering and design approaches to offer specialist modules to prepare you for a career utilising the key principles of mechanical engineering with computing and IT skills. In particular, the theme will focus on modelling methodologies and engineering design.

Upon completion of the theme, you will have demonstrated an understanding of computational methods and design through a variety of modules at an advanced level as well as studying engineering to a high standard both individually and in a team.
A2.9 MEng Mechanical Engineering/Engineering Management
This theme emphasises the importance of linkages between engineering and management. This is achieved by providing the technical skills to understand, design and manufacture new products and the expertise to manage the process, people and finances. In both Parts III and IV a combination of engineering technology and management modules are taken.

Upon completion of this theme, you will have demonstrated your understanding of a wide range of engineering and management subjects at an advanced level and gained experience in working to a high standard both individually and in a team.

A2.10 MEng Mechanical Engineering with Interdisciplinary
The interdisciplinary theme is designed to provide you with a broad coverage of fundamental mechanical engineering subjects, and Parts III and IV you will take a number of modules that are interdisciplinary in nature, ie they are at the boundaries of mechanical engineering and subjects such as biology, social sciences, management, chemistry and physics. The final year, in particular, contains plenty of project-based and engineering management-related studies as well as developing additional mechanical engineering skills. You are strongly encouraged to obtain a training placement for the vacation periods between Parts II and III and Parts III and IV as the experience will be very beneficial in helping you to understand your University studies in a wider context.

Upon completion of this theme, you will have demonstrated your ability to study a wide range of subjects at an advanced level and to work to a high standard both individually and in a team.

A2.11 MEng Mechanical Engineering with Mechatronics
Many of the most exciting challenges for mechanical engineers lie on the interface between mechanical engineering and electronics. Active control techniques and smart structures have widened the potential of structural design. This theme will provide you with a deeper insight into sensors and instrumentation, control and signal processing, and automation and robotics, while maintaining plenty of options with which to build on more traditional mechanical engineering expertise.

Upon completion of this theme, you will have demonstrated an understanding of electromechanical systems, sensors and control at an advanced level as well as studying engineering to a high standard both individually and in a team.

A2.12 MEng Mechanical Engineering with Naval Engineering
This theme has been developed in conjunction with the Ship Science Group to provide detailed understanding of marine systems engineering and design balanced with a broad-based training in the key principles of mechanical engineering. Mandatory and optional modules in management, marine law and maritime safety help students to develop a range of skills that are particularly suitable for those interested in engineering management. The modules, particularly maritime safety, help to develop expertise in key subject areas required to achieve Chartered Engineer status. This programme is available for all MEng Mechanical Engineering students and is also suited for students on the Defence Technical Undergraduate Scheme (DTUS) hoping to pursue a career as an engineering officer in the Royal Navy.

A2.13 MEng Mechanical Engineering with Sustainable Energy Systems
Sustainable energy supply represents one of the key challenges to engineering today. The theme provides an overview of modern energy technologies including renewable energy sources, fuel cells, nuclear engineering and energy economics. You will study related subjects on the behaviour of fluids along with thermal and heat transfer phenomena at an advanced level. You will be introduced to the fundamentals of cryogenic and refrigeration engineering. You will study different mechanisms of heat transfer along with techniques for modelling and examining these mechanisms experimentally. You will also be introduced to more advanced topics in fluid mechanics, including the behaviour of biological fluids and advanced techniques for flow control.

Upon completion of this theme, you will have demonstrated an understanding of fluid behaviour, heat transfer phenomena, energy sources, fuel cells, nuclear engineering and energy economics at an advanced level as well as studying engineering to a high standard both individually and in a team.

For entries A3 to A5 inclusive please note that the most up to date description of the content is in the Programme Catalogue, which can be accessed via SUSSED using the Banner Self-service facility: https://studentrecords.soton.ac.uk/BNNRPROD/twbkwbis_P_WWWLogin
To find links to broad generic descriptions of the programmes and modules follow links to your programme starting from www.southampton.ac.uk/engineering/undergraduate/courses/mechanical_engineering_list.page

A3 Programme content MEng/BEng Part I
All modules in Part I are core i.e. all required assessments must be taken and passed at the required pass mark.

A4 Programme content MEng/BEng Part II
All modules in Part II are compulsory.
A5  Programme content (MEng/BEng Parts III and MEng Part IV)
Parts III and IV comprise mainly a mixture of compulsory taught modules (chosen by theme) and individual and group projects. Additionally there are some option modules that you have selected in the previous academic year.

Transfer between themes after the start of Part III is not normally possible, except if you are able to successfully complete the required modules that are part of the theme to which you wish to transfer.

For MEng students, continuation to Part IV is dependent on satisfactory performance in Part III. An MEng student can elect to exit the programme at the end of Part III and graduate with the appropriate BEng degree class for their performance.

For MEng Part III & Part IV, the themes are as follows:
- MEng Mechanical Engineering with Acoustical Engineering
- MEng Mechanical Engineering with Advanced Materials
- MEng Mechanical Engineering with Aerospace
- MEng Mechanical Engineering with Automotive
- MEng Mechanical Engineering with Biomedical Engineering
- MEng Mechanical Engineering with Computational Engineering and Design
- MEng Mechanical Engineering with Engineering Management
- MEng Mechanical Engineering with Interdisciplinary
- MEng Mechanical Engineering with Mechatronics
- MEng Mechanical Engineering with Naval Engineering
- MEng Mechanical Engineering with Sustainable Energy Systems

Part III (Total 120 CATS credit points, including options)
Part IV (Total 150 credit points, including options)

A6  Practical classes, laboratory work and other coursework
In Parts I and II and selected Part III/IV modules you will undertake laboratory work, practical class-based work and other coursework in addition to attending lectures. The principal objectives of these activities are to:

i. illustrate and enhance the appreciation of the lecture material;
ii. provide experience of the use of specialised test equipment, instrumentation and facilities;
iii. provide appreciation of the philosophy of measurement and associated experimental error;
iv. provide practical experience of computing, engineering design and drawing;
v. provide an opportunity for team activity;
vi. develop skills in communication, critical analysis, decision making and working in a group.

In the main, such coursework consists of two or three exercises per module. However, some modules are assessed wholly by coursework, which may comprise essays, assignments, projects, etc. For all modules, the contribution of coursework to the final mark is given in the module profiles and/or through Blackboard.

A7  Project Work
It is essential that you consult your project supervisor(s) on a regular (e.g. weekly) basis to discuss progress of work. The arrangement for this should be discussed at the start of the project and incorporated into the project plan.

Research involving human participants must always be subjected to ethical scrutiny, to ensure it is carried out in a way that reduces the risk of harm to the participants and increases the potential for benefit. Such benefit may mean, for example, the advancement of knowledge, or the educational benefit of a student. In 2005 the University adopted the Research Governance Framework; according to its recommendations, all research that involves any human participation must have a Research Sponsor. In the case of undergraduate students, the project supervisor can act as the Research Sponsor. If your project work does involve human participation then you must ensure that your project supervisor completes a questionnaire indicating whether they have any ethical concerns about the project and whether it needs to go to the Ethics Committee for consideration.

A7.1  Individual Project
Rules governing Individual Projects and their assessment, along with important information and advice about completing an Individual Project are in the “Individual Project: Guidance for Students” document available on Blackboard.

Late submissions of project reports (interim and final) are subject to penalties described in section 6.2. The project is a core module therefore a pass mark (40%) must be obtained in the Individual Project in order for a degree to be awarded.

(all students)
You are required to carry out an Individual Project in Part III. Individual Projects have a value of 30 CATS credit points and run through two semesters. The process of Individual Project selection is carried out in Semester 2 of Part II. Following the allocation of projects and the completion of the literature survey, you must:
A7.2 Group Design Projects
MEng students are required to carry out a Group Design Project (GDP) in Part IV. The GDP involves the design and usually build of an artefact or some equipment. Therefore careful planning and organisation is essential. Group Design Projects are worth 45 CATS and run through two semesters. The project teams usually consist of 5-6 students; although this depends on the scope of the project. The following activities take place:

i. team meets to organise and prepare project proposal, including finances and, where applicable, external sponsorship; project supervisor(s) are consulted (normally Week 1); in some cases this will involve crucial presentations of your plans to the researcher coordinating the project,
ii. preparation of a bid for extra funding if deemed necessary by the supervisor(s),
iii. second examiner appointed (normally Weeks 2 - 4),
iv. lab inductions attended by week 4 where applicable
v. teams are advised to have regular progress meetings with supervisor(s),
vi. teams arrange project review meetings during the 1st and 2nd terms with the second examiner and, where applicable, sponsor,
vii. teams attend formal presentation and viva (Semester 2, from Week 12).

Late submissions of project reports (interim and final) are subject to penalties described in section 6.2. The project is a core module therefore a pass mark (40%) must be obtained in the Group Design Project in order for a degree to be awarded.

A8 Prizes
The School likes to recognise outstanding performance in its students and offers a range of prizes. The main established prizes are listed below.

Part III Prize, Best Overall Project
This prize is awarded to the student with the best overall performance in Part III MEng or BEng.

Part IV Prize, Best Overall Performance
This prize is awarded to the student with the best overall performance in Part 4 MEng.

The IMechE Best Project Certificate is awarded annually, on the recommendation of the Programme Coordinator. It is awarded to a final year undergraduate who completes an outstanding research, development or design project in mechanical engineering. One certificate is awarded for each programme.

The IMechE Project Award is awarded to a final year undergraduate who obtains the highest mark for their Group Design Project. There is one prize per institution, irrespective of the number of programmes nominated by the Director of Programmes. The student must be an affiliated member of the IMechE to be eligible for prize nomination.

The IMechE Fredrick Barnes Waldron Prize is awarded annually for the best student in Mechanical Engineering. It is awarded on the recommendation of the IMechE Branch Committee. The award is limited to one per institution – irrespective of the number of programmes offered. The student must be an affiliated member of the IMechE to be eligible for prize nomination and must have completed two years of the degree programme.

Best Student in MEng with Mechatronics
This prize is awarded to the best student in MEng Mechanical Engineering with Mechatronics.

Best Student in MEng with Automotive
This prize is awarded to the best student in MEng Mechanical Engineering with Automotive.

Best Student in MEng with Sustainable Energy Technologies
This prize is awarded to the best student in MEng Mechanical Engineering with Sustainable Energy Technologies.

Best Student in MEng with Advanced Materials
This prize is awarded to the best student in MEng Mechanical Engineering with Advanced Materials.

Dean’s Award
These prizes are awarded for the best performance in Year 3 BEng, Year 3 MEng and Year 4 MEng.
Appendix - Programme Specific Information – Aeronautics & Astronautics

A9 Introduction to Aeronautics & Astronautics
Aeronautics and astronautics is having an increasingly significant impact on modern life. Over the next decade expenditure within the global aerospace market is expected to be greater than $2000 billion, with a major contribution coming from the UK, presently the world’s third largest buyer and seller of aerospace products.

At Southampton the Aeronautics & Astronautics engineering degree is recognised as being of the highest quality and we expect to provide you with the key knowledge and skills required to enter the aerospace industry. The Southampton area has long been associated with this industry. Aeronautics has been taught at Southampton since the 1930s, with the foundation of the Department of Aeronautical Engineering in 1951. Rapidly expanding interests in space technology and astronautics research led to the renaming of the Department in 1958 to the Department of Aeronautics and Astronautics. In 1999 this was incorporated into the School of Engineering Sciences and in 2011 aligned with the Faculty of Engineering and Physical Sciences following the University’s academic restructure.

Aerospace teaching and research within the School encompasses all aspects of aeronautics and astronautics. This includes the areas of aerodynamics, structures, propulsion, aerospace materials, aerospace systems and spacecraft engineering. All are brought together in the subject of aerospace design.

A10 Philosophy and aims of the Aeronautics & Astronautics programmes
The Aeronautics and Astronautics programmes (including Space Systems Engineering) provide a flexible structure that allows you to choose a specialist theme in addition to core aspects of aeronautics and astronautics. Parts I and II provide the fundamental knowledge as well as the skills and understanding necessary for using information technology in an engineering context. As you progress through the programme you will find an increasing emphasis on aerospace-specific subjects. Aerospace design and related work permeates the programme and ensures that you will be able to apply your theoretical understanding to real design problems that you might later encounter in industry.

The Aeronautics & Astronautics programmes consist of four parts (I through IV) each of which is taught over one year. Parts I and II are common to all programmes (with slight modification in Part II for the MEng Space Systems Engineering programme).

Part I is used to establish a firm foundation in engineering principles, and this is enhanced with studies specifically directed towards aerospace applications and operations. Part II builds on this foundation, by introducing core aerospace subjects such as aerodynamics, propulsion and mechanics of flight. You will also undertake your first module in Astronautics in Part II. Part III and Part IV are determined by the choices you make at the end of Part II. These two years of the degree programmes are designed to accommodate your particular interests, by allowing a choice from an extensive range of aerospace and related module options. This diversity is complemented by mandatory, multidisciplinary modules (such as Aerospace Design) in Part III. In Part III you will also undertake an Individual Project which allows you to carry out an in-depth investigation on a specialised topic using analytical and/or experimental methods. In addition, a major part of the Part IV is the Group Design Project, which is carried out in small groups. Progression to Part IV is dependent on satisfactory performance at Part II and Part III. If you choose to leave the MEng programme at the end of Part III, you can graduate with a BEng degree. The final degree awarded at the end of Part IV is the MEng. The MEng degree is designed to give a broader coverage of fundamental engineering subjects within the context of Aeronautics & Astronautics.

A feature of the BEng and MEng Aeronautics & Astronautics programmes is the opportunity provided for you to tailor your studies to fulfil your own individual aspirations. Many students focus their degree studies on one specific aspect of aeronautics and astronautics, by careful selection of a topic-related set of options. Themes are chosen at the end of Part II. Current themes are:

- Aerodynamics
- Airvehicle Systems and Design
- Computational Engineering and Design
- Engineering Management
- Materials and Structures
- Spacecraft Engineering

In addition the MEng Space Systems Engineering programme provides students with an opportunity to specialise still further into facets of spacecraft engineering.

A10.1 BEng Aeronautics & Astronautics
This three-year programme covers all the traditional core subjects of aeronautics and astronautics. As with the MEng programme, there is an increasing emphasis on discipline-specific subjects as you progress through the programme. The programme includes an Individual Project in Part III. It does however offer a more restricted choice of options in Part III than the MEng programmes, and does not include a Group Design Project nor any specialist themes.
NB: this programme has been accredited by the Royal Aeronautical Society and Institute of Mechanical Engineers as partially fulfilling the educational requirements to become a Charted Engineer (CEng). In order to satisfy the educational requirements for CEng, graduates of the BEng are required to undertake additional educational training to Masters level by taking an approved course of study.

A10.2 MEng Aeronautics & Astronautics
The first three years of the MEng programme are common with the BEng programme. However in Part IV the MEng programme offers you the opportunity to study a more extensive range of aerospace topics in greater depth than at BEng level. In addition, you will take part in a substantial Group Design Project. The MEng programme covers all the material needed currently to satisfy the academic requirements to become a Chartered Engineer. It is aimed at those who wish to pursue technically demanding careers in aerospace-related industries (including project management), or in research. Design, system studies and project activities are an integral part of the programme and are used throughout to emphasise the strong multidisciplinary nature of aerospace engineering. You can select a theme in the third and fourth years, giving the option to focus on particular aerospace topics or to follow an interdisciplinary approach that is aimed at giving students a greater breadth of knowledge of professional engineering in industry.

A10.3 MEng Aeronautics & Astronautics/Aerodynamics
On this programme you will learn about the design and integration of wings and propulsion systems for aerospace. You will gain an appreciation of the capabilities and limitations of current aerodynamic prediction and measurement techniques. The programme provides excellent preparation for aerodynamics research.

A10.4 MEng Aeronautics & Astronautics/Airvehicle Systems and Design
This programme focuses on aeronautical topics with a particular emphasis on helicopters and fixed wing aircraft, engine design and avionics. Using a complete vehicle systems approach, you will also learn about modern design, search and optimization techniques.

A10.5 MEng Aeronautics & Astronautics/Computational Engineering and Design
This theme is designed to cover both advanced computational methods for solving structural and fluid dynamical problems and also automated search and optimisation methods for system design and reliability prediction.

A10.6 MEng Aeronautics & Astronautics/Engineering Management
This programme is designed to enable professional engineers to progress quickly into key management positions in the aerospace industry. On this programme, you will develop the technical skills to understand, design and manufacture new products and the expertise to manage the process, people and finances.

A10.7 MEng Aeronautics & Astronautics/Materials and Structures
A degree theme focusing on advanced material properties including composites and also computational methods to estimate the strength and durability of components used in aerospace and spacecraft design.

A10.8 MEng Aeronautics & Astronautics/Spacecraft Engineering
This programme is aimed at students who may be interested in pursuing a career in the spacecraft industry. In Parts III and IV elements of the aircraft design content of the Aeronautics & Astronautics programme are retained, but the emphasis is more on the overall system design of spacecraft. Therefore this programme offers great flexibility for graduates in terms of future career options within the aerospace industry.

A11 Programme content
The detailed content of each of the Aeronautics & Astronautics programmes and themes can be viewed online in the Programme Catalogue, which can be accessed via SUSSED using the Banner Self-service facility: https://studentrecords.soton.ac.uk/BNNRPROD/twbkwbis.P_WWWLogin
The Programme Catalogue will describe the compulsory modules in each year and will also provide a list of the optional modules available for each programme/theme in Parts III and IV.

It should be noted that the content of the Programmes is subject to change but the listing provided in the Catalogue should remain valid for the current year of study.

Parts III and IV comprise mainly a mixture of compulsory taught modules (chosen by theme) and individual and group projects. Additionally there are some optional modules that you have selected in the previous academic year.

Transfer between themes after the start of Part III is not normally possible, except if you are able to successfully complete the required modules that are part of the Theme to which you wish to transfer.

For MEng students, continuation to Part IV is dependent on satisfactory performance in Part III. An MEng student can elect to exit the programme at the end of Part III and graduate with the appropriate BEng degree class for their performance.
A12 Practical classes, laboratory work and other coursework

In Parts I and II and selected Part III/IV modules you will undertake laboratory work, practical class-based work and other coursework in addition to attending lectures. The principal objectives of these activities are to:

i. illustrate and enhance the appreciation of the lecture material;
ii. provide experience of the use of specialised test equipment, instrumentation and facilities;
iii. provide appreciation of the philosophy of measurement and associated experimental error;
iv. provide practical experience of computing, engineering design and drawing;
v. provide an opportunity for team activity;
vi. develop skills in communication, critical analysis, decision making and working in a group.

In the main, such coursework consists of two or three exercises per module. However, some modules are assessed wholly by coursework, which may comprise essays, assignments, projects, etc. For all modules, the contribution of coursework to the final mark is given in the module profiles and/or through Blackboard.

A13 Flight test course (Aeronautics & Astronautics programmes only)

In Part II Aeronautics & Astronautics students are required to attend a Flight Test Course, usually in the Week 29 or 30, although sometimes early in the summer vacation period, depending on the availability of the flying laboratory aircraft. This includes briefing sessions and flights from Southampton Airport. A report is due in Week 1 of Part III, the mark for which is included in the assessment of SESA3028 Aerospace Design.

A14 Project Work

It is essential that you consult your project supervisor(s) on a regular (e.g. weekly) basis to discuss progress of work. The arrangement for this should be discussed at the start of the project and incorporated into the project plan.

Research involving human participants must always be subjected to ethical scrutiny, to ensure it is carried out in a way that reduces the risk of harm to the participants and increases the potential for benefit. Such benefit may mean, for example, the advancement of knowledge, or the educational benefit of a student. In 2005 the University adopted the Research Governance Framework; according to its recommendations, all research that involves any human participation must have a Research Sponsor. In the case of undergraduate students, the project supervisor can act as the Research Sponsor. If your project work does involve human participation then you must ensure that your project supervisor completes a questionnaire indicating whether they have any ethical concerns about the project and whether it needs to go to the Ethics Committee for consideration.

A14.1 Individual Project

Rules governing Individual Projects and their assessment, along with important information and advice about completing an Individual Project are in the “Individual Project: Guidance for Students” document available on Blackboard.

Late submissions of project reports (interim and final) are subject to penalties described in section 6.2. The project is a core module therefore a pass mark (40%) must be obtained in the Individual Project in order for a degree to be awarded.

You are required to carry out an Individual Project in Part III. Individual Projects have a value of 30 CATS credit points and run through two semesters. The process of Individual Project selection is carried out in Semester 2 of Part II. Following the allocation of projects and the completion of the literature survey, you must:

v. submit a preliminary project plan. (Semester 1, weeks 1-3); you will be informed of when this will take place by email;
vi. submit an interim project report to be assessed by your supervisor and a second examiner (end of week 9);
vi. submit a final project report to be assessed by your supervisor and a second examiner (Semester 2, in week 10);
vii. attend a student poster presentation day beginning of June (Semester 2, week 12) where you present your project on a poster to at least 2 examiners

Guidance to students, including the calendar of events can be located from Blackboard and is stored under FEEG3003.

A14.2 Group Design Projects

MEng students are required to carry out a Group Design Project (GDP) in Part IV. The GDP involves the design and usually build of an artefact or some equipment. Therefore careful planning and organisation is essential. Group Design Projects are worth 45 CATS and run through two semesters. The project teams usually consist of 5-6 students; although this depends on the scope of the project. The following activities take place:

viii. team meets to organise and prepare project proposal, including finances and, where applicable, external sponsorship; project supervisor(s) are consulted (normally Week 1); in some cases this will involve crucial presentations of your plans to the researcher coordinating the project,
ix. preparation of a bid for extra funding if deemed necessary by the supervisor(s),
x. second examiner appointed (normally Weeks 2 - 4),
xii. lab inductions attended by week 4 where applicable
teams are advised to have regular progress meetings with supervisor(s),

teams arrange project review meetings during the 1st and 2nd terms with the second examiner and, where applicable, sponsor,

teams attend formal presentation and viva (Semester 2, from Week 12).

Late submissions of project reports (interim and final) are subject to penalties described in section 6.2. The project is a core module therefore a pass mark (40%) must be obtained in the Group Design Project in order for a degree to be awarded.

A15 Prizes

The School likes to recognise outstanding performance in its students and offers a range of prizes. The main established prizes are listed below.

The Royal Aeronautical Society prize is awarded to the Part IV MEng student in the Aerospace cohort with the best overall performance.

The Jim Graham Prize is awarded to the student with the Best Experimental Individual Project.

The Charlie Williams Wind Tunnel Prize is awarded to the student with the Best Individual Project using the Wind Tunnel.

Deans Award

The School likes to recognise outstanding performance in its students and offers a range of prizes.
Appendix B  Revision Strategy and Examination Techniques

B1  Revision strategy
Revision should be an on-going process which starts very early in your programme. The amount of knowledge to be accumulated and the variety of skills and techniques to be developed are large and they are best assimilated gradually and consolidated as you go along. Regular revision is really a part of the learning process but, of necessity, becomes more concentrated as the examination approaches. "Re-vision" means looking again at things you have already seen – it is not about learning for the first time.

B1.1 Final revision programme
At the start of your final revision schedule (during the Christmas Vacation for Semester 1 exams, and during the Easter Vacation and at the end of the taught element of the programme for Semester 2 exams) you must get organised, and the best way to do this is to devise a revision timetable. Plan your time carefully, give yourself definite objectives for each session, revise actively, test yourself regularly, make notes, and practice problem solving. Use revision sessions to study topics you have worked on before, as revision is simply the process of reminding you of topics and techniques previously understood. You will appreciate how well-organised notes will help you during your revision. Write out important definitions, proofs, formulae and equations, checking them against your notes. Re-work previously solved problems without looking at your previous solution, then attempt questions that you have not looked at before. Make special revision notes for quick reference on cards to keep in your pocket and charts to hang on the wall of your study room. Practice your examination technique.

Examination practice
You should be familiar with the courses and syllabuses you will be examined in at the end of Semester 1 and Semester 2. Analyse recent examination papers. Work out how long you have for each question and become familiar with the style of questions.

During your ordinary study periods you will have attempted many questions but will have seldom given yourself strict time restrictions. In examinations the timing of your answers to questions is vitally important. Practice answering examination questions in mock examination conditions, allowing yourself only the normal available examination time and the equipment you are permitted to take into the examination room. To obtain 'mock examination' practice save one or two complete examination papers so that you can use them as final test papers 'against the clock'.

Examination nerves are common and understandable but will be lessened if you have followed a sensible course of study and revision. You may not do yourself justice if you have a poor examination technique. The hints below should help you to tackle the examination with greater confidence.

Examination techniques

Before the day
Before the actual day of your examination, make sure you know:
- the date, day, time and venue of each paper for your course;
- how to get to the examination venue if it is not well known to you;
- your student ID (take your ID card to all examinations);
- the telephone number of the Student Office +607-560 2560

Prepare any equipment you will need for your particular examination:
- pens which are comfortable to use;
- sharp pencils, a pencil sharpenener and rubber;
- drawing instruments such as a ruler, compasses, protractor, set squares;
- University approved calculator (if allowed) and spare batteries (check that you know how to replace them quickly);
- an accurate watch or small clock.

On the Day
Before the examination:
Check that you have all the equipment you will need (including your student ID card) before setting off for your examination with plenty of time to spare. If you are delayed, contact the Student Office (have the telephone number with you) to explain what has happened. Arrive at the examination room early; a late start to an examination cannot be a good start and you will not be permitted to enter the examination room later than 30 minutes after its scheduled start time.

Just before the start:
Listen carefully to the invigilator. There may be some changes or special instructions which you were not expecting or some errors in the paper. Fill in any details, such as your student ID number, when the invigilator instructs you to do so.
Reading the instructions:
When the invigilator says that you may begin, read the instructions on your examination paper very carefully. Make sure that it is the correct examination paper and in particular note:

- the number of sections and questions you have to do;
- how much time you have to do them in;
- which questions (if any) are compulsory;
- what choice of questions (if any) you have;
- how to present your answers.

Planning your time:
Quickly calculate the length of time you should spend on each question. You will have practised doing this for past papers but make sure that you use the instructions on your actual examination paper, rather than making any assumptions. Try to allow about 10 minutes at the end for checking your paper.

Choosing the questions:
Read through the whole examination paper carefully, checking that you have read each page. If you have a choice of questions:

- cross out the ones you cannot do;
- tick those you can definitely do;
- choose the correct number to do;
- mark the order in which you are going to attempt them, attempting your best question(s) first.

Answering the question
Before you attempt to answer a question, read it all again carefully, jotting down points such as formulae and information relating to that question. These hints should help you when writing an answer.

- Plan before you write – the stress of working under time constraints in the exam room can make all your good study intentions disappear. However, this is when it is more important than ever. Take a few minutes to think and plan.
- Think about what the question is actually asking. What are you expected to include in your answer? Which material will be relevant?
- Underline the key words in the question; identify the main topic and discussion areas; choose a few points/arguments about which you can write; make a mini plan which puts them in order before you start writing. You can cross through it afterwards.
- Make sure that your writing is legible.
- Present your answer in a neat, logical and concise way.
- Show all your working; marks are often given for methodology as well as your answers.
- You should be able to refer by name to the main theorists/researchers in your topic, giving the year of their major works. You do not need to give page numbers of lengthy quotes, except in an open book exam. You do not need a reference list.
- Do not do things you are not asked for.
- If relevant, state any principles, results, formulae used and indicate your reasons for using them.
- Check any formulae you use with the formula sheet, if provided.
- Always do a rough estimate of any calculation to check that your answer is sensible.
- When using a calculator, make sure that each calculation is shown clearly in your answer and give your final answer to the required degree of accuracy.
- If you get 'stuck', re-read the question carefully to check that you have not missed any important information or hints given in the question itself.
- When you have completed your solution, re-read the question to check that you have answered all parts.

Examination discipline:
It is important that you try to keep to the times you have allocated to answering a question or section and that you answer the correct number of questions. If you answer less than the number of questions required you are limiting the number of marks available to you.

At the end:
Before handing in your examination script, check that:

- any 'front sheet' is completed according to the instructions;
- every loose page is clearly marked with your student ID, etc;
- every answer is numbered correctly;
- pages are numbered clearly and in order.