

# Institute of Earth Systems STUDENT HANDBOOK

September 2023

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# Section 1 Introduction

# The Institute of Earth Systems

The Institute of Earth Systems (IES) was established in May 2010, effectively merging the former International Environment Institute (IEI) and the Institute of Agriculture (IoA) into a single entity. The Institute includes within it two Divisions, namely (i) the Division of Environmental Management and Planning and (ii) the Division of Rural Sciences and Food Systems. The Institute also includes within it the Euro-Mediterranean Centre on Insular Coastal Dynamics (ICoD), as well as the Mediterranean Operational Centre for CEDARE (Centre for Environment and Development for the Arab Region and Europe).

Founded on over thirty years of experience in the field, the Institute regards human resource capacity building as its raison d'être, and works towards training specialists in various aspects of environmental science, environmental and natural resource management, integrated planning, weather and climate, and rural sciences. In this regard, the Institute runs interdisciplinary courses at both undergraduate and postgraduate levels, the latter including a full-time M.Sc. in Natural Environment and Resource Management, an M.Sc. by research in Rural and Environmental Sciences offered on both a full- and part-time basis, and a double degree M.Sc. in Environmental Management and Sustainability offered jointly with James Madison University in the USA. A significant number of the Institute's alumni now have prominent professional careers in the environment, planning and agricultural sectors, both locally and internationally. The Institute also provides training for continuing professional development through periodic short courses, seminars, and workshops, both in Malta and overseas.

The Institute of Earth Systems has a strong track record in international research, particularly but not exclusively in the Mediterranean region. Drawing on its network of research associates, the Institute has been a partner in numerous research projects, focusing on themes such as coastal management, biodiversity conservation, agricultural production, integrated water resources management, land conservation, stakeholder participation in environmental management, environmental assessment, landscape ecology, and sustainability, amongst many others. As a result of such projects, the Institute maintains close links with several foreign universities and international organizations, enabling collaboration and exchanges for the mutual benefit of partners. The Institute's participation in research further serves to ensure that its capacity building mission is suitably adapted and tailored for application to real-world situations in a variety of contexts, as well as providing opportunities to students for hands-on experience of working in international arenas.

For further details of the Institute's courses and other activities, please visit our official website. The Institute also maintains a Facebook page, where we post relevant notices and items of interest – we encourage you to visit and 'like' our page, and to interact with us on Instagram.

# The handbook

We welcome you to your course of studies with the Institute of Earth Systems and hope that you will have an enjoyable and fruitful experience. This handbook is intended to serve as a guide to support you during your studies, and to enable you to approach your work in an effective way. We encourage you to familiarize yourself with its content.

Section 2 of the handbook outlines the codes of conduct expected of our students. We seek to produce graduates who are not only of high academic standard, but who are also persons of integrity, who may be counted on to behave professionally in any situation and who can work effectively in teams.

**Section 3** provides guidelines for effective study methods and activities. We recognize that all students have other demands on their time, and that some of you are in full-time or part-time employment, and have family or other commitments. Making the best possible use of your time is therefore of paramount importance, as is developing a good technique for studying. Although you will need to find a method that works for you, we provide some general suggestions which may be useful.

**Section 4** deals with examinations and assignments. High marks in assessments are the result not only of a good knowledge of the subject matter, but also of effective communication and delivery. Students who obtain poor marks in examinations often do so not because they do not know the subject matter well, but because of unplanned responses or ineffective communication. The tips provided are intended to help ensure that you transmit your knowledge to your examiners in a successful way.

**Section 5** focuses on dissertations and research/practice-oriented projects, which form a key component of your course of study. The dissertation or project should be an opportunity for you to independently explore an area of particular interest to you. Your approach and planning will determine how enjoyable this experience turns out to be.

**Section 6** provides information on support structures which you are encouraged to make use of during your studies.

**Section 7** outlines various media used for communication with students, notably email, eSIMS and the Virtual Learning Environment (VLE).

# Section 2 Codes of conduct

The University of Malta expects its students to conduct themselves in a way that enhances the University's reputation while also following all regulations and bye-laws that are applicable. Be aware that failing to behave appropriately can have serious consequences. Should you need to familiarize yourself with the University's disciplinary measures, more information is available online.

## Ethical conduct

Ethical conduct is expected from all Institute students. Ambition and self-interest are important to your academic development, but your university experience should also lead to your civic development. Please bear in mind the guidelines below.

#### Honesty

Students are expected to be sincere and forthright, and to deal fairly and truthfully with others. Any exploitation of fellow students is unacceptable; work carried out in teams is expected to be based on equal contributions by all team members. Attempts to deceive through cheating or plagiarism will be subject to severe disciplinary reprisals.

#### Respect

Throughout your course of studies, you will be working with several individuals, from different backgrounds, who bring varied but equally important contributions to the course. Your relationship with your peers and with your tutors should be based on a culture of mutual trust, respect and integrity. Cultural differences between course participants will enrich your experience and no forms of prejudice or expressions of disrespect for the background or beliefs of any student will be tolerated. Behaviour of the individual should not interfere with the rights of others.

You can find further information about the University's policy on harassment and bullying online, as well as the procedures for handling cases of such behaviour.

#### Professionalism

Always bear in mind that bad reputations are quickly gained and not easily lost. As budding professionals in fields related to Earth Systems, ensure that the reputation which you develop is one of high standards of performance, conduct and cooperation with fellow students and tutors. The track record you establish throughout your time at University will go a long way towards determining your success in the professional arena.

# **Respect for nature**

In the course of your studies for an environment/agriculture-related discipline, it is likely that you will work in natural and rural areas, and that you will be dealing with living species of plants and animals. In this regard, please bear in mind the oft-quoted maxim 'take only photographs, leave only footprints'. At the same time, always put the welfare of wildlife ahead of your desire to view it or photograph it! If it is necessary for you to take sample specimens of flora and fauna, please keep these to the bare minimum necessary and always check first to ensure they are not protected species.

Avoid unnecessary noise in rural and natural areas, and avoid trampling away from established footpaths. Ensure that you do not trespass onto, or damage, the property of others. Seek to advance your own and others' respect for, and understanding of, nature and all forms of life.

Also be aware of the three Rs - i.e. reduce, reuse, recycle. In your daily work regime and in writing your assignments or dissertations, try to minimize any unnecessary consumption of resources. Use electronic means of communication where possible, and seek to re-use paper; we also suggest that you use cardboard folders instead of acetate when you need to present hard copies of your work, since such folders may be recycled for other submissions.

## **Conducting research**

Research should not be conducted for its own sake or for the purpose of individual glory. Particularly in environmental disciplines, there are many issues requiring urgent study, and we urge you to ensure that your work contributes, even if in small measure, to society at large.

Ensure that your research is conducted in an ethical manner, respecting the rights of all those (humans and non-humans) contributing to your study.

# Plagiarism

According to the Merriam-Webster online dictionary, to plagiarize means:

- to steal and pass off (the ideas or words of another) as one's own;
- to use (another's production) without crediting the source;
- to commit literary theft;
- to present as new and original an idea or product derived from an existing source.

Plagiarism is thus a **serious act of fraud** and will be severely dealt with. Disciplinary action will be taken in any instances of plagiarism and may lead to possible dismissal from the course. Students should be aware that plagiarism is often easy to detect, as there are clear differences between a student's original writing style and the writing style used in plagiarized text. There are now also several software packages available for detecting plagiarism, and any such offence can be rapidly detected and proved. Do be aware that all work submitted by students *will* be checked for plagiarism.

To avoid plagiarism, you should give credit whenever you use:

- another person's ideas or opinions, both when used as a direct quotation as also when paraphrased into your own words;
- factual knowledge, figures, drawings, tables and statistics derived from an external source.

If you are in any doubt concerning what constitutes plagiarism or how to avoid it, we suggest you consult the following guidance documents issued by the University of Malta:

- University Guidelines on Plagiarism and Collusion
- How to Avoid Plagiarism

Guidelines for students on how to use the University's plagiarism detection software, Turnitin, when submitting assignments or dissertations through the University's Virtual Learning Environment (VLE), as well as details of the orientation session available to new students, are available online.

If you require further help with using Turnitin, IT Services regularly organizes short workshops for both undergraduate and postgraduate students.

Please also take note of the University's Assessment Regulations.

Regulations may be amended from time to time; for this reason, please look out for any updates. Should you feel the need, please contact the staff of the Institute of Earth Systems for further guidance concerning plagiarism.

## Punctuality and attendance

Attendance at lectures, seminars and any other academic course events is mandatory. If there is a valid reason for being unable to attend, students should inform their lecturer accordingly, and must hand in any medical certificates, where applicable, within five working days of the date of their absence. Certificates must be signed for both by the student and by a member of the administrative staff when they are submitted. Students should also make arrangements

to cover any course content which they would have missed. A student accumulating more than four (4) hours of unauthorized absence may not be allowed to undertake study-unit assessment(s).

Students are reminded that a semester is not over until the end of the examination period. This is normally mid-February for semester 1 and end of June for semester 2, and the specific dates for each year are published online. Due to possible *ad hoc* rescheduling of assessment-related activities, students are to ensure that they remain physically present in Malta and able to attend such activities on campus till the last day of each semester.

Student-athletes who might be required to participate in training sessions and/or competitions during either semester should register with the Student Athlete Support Programme (SASP), and are to strictly abide by SASP Policy and to fill in and submit an SASP Exemption Request Form with full details of any planned absences. In addition, student-athletes should seek permission from (not merely inform) the lecturers concerned regarding their scheduled plans to participate in local or overseas activities that will lead to absences. Such requests should be made **well in advance**, ideally months before the date of the activity, and will be accommodated only where this is possible both logistically and practically.

Students should also be punctual, not only for logistical reasons, but also out of respect for their peers and tutors. Lecturers have the right to refuse late entry to a class.

You can find further information about attendance and punctuality, as well as details concerning submission of assignments and appropriate behaviour during lectures, within the Institute's Code of Conduct.

## Fieldwork

Students should be particularly mindful of their conduct during field trips. It is imperative that you arrive on time at the agreed rendezvous points, and that you observe any special instructions issued by staff members accompanying you in the field. If you are working in groups, cooperation with your fellow students is of paramount importance.

Please note that you are required to agree to certain terms and conditions in relation to your participation in field sessions during your course. A signed copy of the Waiver of Liability and Consent Form must be handed in to the administrative staff at the start of **each academic year**.

You are asked to immediately inform a member of staff of any relevant changes to your circumstances.

# Section 3 Study methods & activities

# **Teaching yourself – study skills**

Every student has their own individual learning strategy. It is important to develop a method that works effectively for you. You may find the following tips useful in getting started.

- Remember that learning is an iterative process. You should gradually build on the knowledge you gain throughout your course of studies, frequently re-visiting material from earlier in the course. Even if your course does not include synoptic final exams, you will still be expected to demonstrate growth and full assimilation of course materials over the duration of your studies. Be aware that exam questions may draw on material from previous units, so you should be prepared to demonstrate a broad understanding and knowledge base within your answers.
- Be clear about the aims and objectives of each study-unit and consult the study-unit descriptions available on eSIMS. You will make the best use of your time and effort if you are well aware of what you should be achieving at each step.
- Learn to be disciplined in your studying. Develop a study schedule that works for you, and find ways to organize your course materials for easy access. It is often useful to develop a timetable, particularly for revision purposes.
- Get to know what works for you. Particularly if you have been away from formal studying for a while, you may need some time to find an appropriate way to integrate studying with the rest of your life. This is particularly true for those who are also juggling work and/or family commitments. Figure out at which times of the day you feel most comfortable studying, and find a location where you can work free of distractions.

# Reading

Reading is an indispensable intellectual activity in any course of studies. A good knowledge of the literature and evidence of wide reading are key factors in setting apart the most successful students. Familiarize yourself with the library at the University of Malta and make sure you use the various collections available within it. We also encourage you to make judicious use of the many resources available online. It is often possible to get access to relevant resources, including scientific papers (and/or their abstracts) and book extracts, through facilities such

as Google Scholar. We also frequently post items of interest, including news and popular articles, on the Institute's Facebook page.

Do remember that reading widely is not an optional extra, but a fundamental component of your course that is expected by the Institute. Simply reproducing lecture notes will not earn you good marks!

As you read relevant literature, you should:

- make sure that you fully understand the content;
- note down key points, if and when appropriate;
- identify links between concepts and ideas;
- consider the applications of what you are reading to different scenarios;
- compare the material you are reading with other literature and your own experiences and views.

The process of taking notes is often useful to assimilate what you are reading. Try to focus on salient points and put these into your own words, rather than copying chunks of text word-for-word. Organize your notes well for ease of reference, including headings and subheadings as necessary. Remember to note down the source of the information.

#### Lecture notes

It is the individual lecturer's prerogative to decide whether or not to pass on lecture notes or copies of PowerPoint slides; furthermore, students are not allowed to make audio recordings or take photographs during lectures, unless with the lecturer's specific consent. Please respect the decisions and didactic methods of the lecturer. If taking your own notes during lectures, bear in mind that you are not reading for a secretarial degree. Do not try to write down everything the lecturer says, word-for-word. Focus on assimilating and fully understanding the content of lectures, and on participating in discussions. Always seek to supplement your understanding of the lecture through additional reading.

#### **Compiling a glossary**

You may find it useful, throughout your studies, to develop a glossary of specialized vocabulary related to your discipline. The process of defining, in your own words, key concepts and terms will help you to fully understand and remember critical course content, and will help to make technical terminology a part of your vocabulary. It is useful to revisit your glossary periodically to make sure that you remember ideas and concepts from earlier in the course.

# **Critical thinking**

Critical thinking is an indispensable skill, for both academic and professional pursuits. Learning to think in critically analytical and evaluative ways brings precision and depth to the way you approach your work. Skills in critical thinking enable you to critically assess not only your own positions and opinions, but also the work of others.

Students should learn to identify key arguments and to assess the logical basis for positions taken. You should also learn to read between the lines, identifying underlying assumptions, and flaws in arguments, as well as taking into account any critical aspects which are absent from the argument. Evidence is a key component of critical thinking. Where is the proof for the argument which is being presented? How reliable is the evidence? How relevant is the evidence?

Critical thinking will also enable you to make more efficient use of your time, helping you to identify key arguments and the most salient aspects of a paper or chapter. Although you will often need to read material in full, you should also develop skills in skim-reading in order to make the most effective use of the time you have available. Learn to pick out key arguments in a piece of text. If the argument is relevant to your work, then critically assess the fine details of the argument.

# Section 4 Assignments & examinations

# Language

The language of the course is English. Your standard of English is likely to be a key factor in your success throughout your course, particularly when it comes to writing. There are several self-assessment language tools available online, and we encourage you to use these if you have any doubts as to your standard of English. If your English is not up to scratch, we would strongly encourage you to take action to improve it, as you will otherwise struggle with writing assignments throughout the course. In particular, please ensure that you are well aware of basic conventions in writing such as appropriate use of punctuation, sentence structure and correct use of vocabulary.

Academic writing also requires a specific set of skills, different to those used in other forms of writing. We strongly encourage you to develop a feel for the style of academic writing utilized in journals, as you will need to develop similar writing skills throughout your course. Try to read different journal articles to develop an understanding of the style utilized.

## Tips for essay writing

Throughout your course of studies, you will be required to submit written work in response to examination and assignment questions. The following general points may seem selfevident but are often overlooked by students. We would therefore urge you to keep the following in mind:

#### • Answer the question!

The first step in preparing your work is simply to read the question carefully. This is surprisingly one of the most common stumbling-blocks for students. Your work should be a clear and well-structured response to the specific question set in your examination or assignment. Your answer should <u>not</u> seek to demonstrate all you know about the topic in question, neither should it digress onto irrelevant aspects. It is useless trying to pull wool over your examiner's eyes. (Many have tried before you and none have succeeded!) If you do not know your material, no amount of waffling will persuade your examiners that you do. Simply answer the question which was set in the best way you can, using any **relevant** material which may supplement your answer.

#### • Focus on quality rather than quantity

Marks are not assigned on the basis of length but rather on the basis of content. Padding your answers with irrelevant material in order to increase length will not earn you any credit. The skill of being concise and to the point is critical for effective writing. In particular, avoid repetition and long-drawn-out statements. Also avoid using very long sentences.

#### • Identify key words used in questions

Questions include both 'content' words and 'process' words. 'Content' words tell you what topics you need to focus on. 'Process' words tell you how you need to address that content. Make sure that you fully understand what the question is asking you to do. Explanations of common 'process' words used in questions are listed below.

Analyze	Examine critically, looking at the detail of component parts
Assess	Determine the value of
Compare	Look for and explain similarities and differences, if appropriate reaching a conclusion about which alternative is preferable and why
Contrast	Set in opposition to bring out and discuss differences, possibly also noting similarities
Criticize	Give a reasoned, logical and informed judgment, based on evidence, as to the merits of theories and ideas
Define	Give the precise meaning of a word or concept, perhaps examining different definitions for the same term
Describe	Give a detailed account of
Discuss	Explore an issue, using reasoned argument; identify different aspects and highlight advantages and disadvantages, or reasons for and against
Enumerate	List in an outline form, giving points consistently, one by one
Evaluate	Make a balanced appraisal of the worth of something, based on evidence and reasoned argument, and possibly including your own well-informed opinion
Explain	Clarify and give details about something
Illustrate	Use carefully chosen examples, figures or diagrams to explain or clarify an issue
Justify	Give reasons for an argument or point of view, showing and explaining adequate grounds and evidence
List	Write an itemized series of concise statements in outline form. Try to present lists according to importance and priority

Outline	Give the main features of principal elements of an argument, without delving into minor details. Emphasize structure and arrangement
Relate	Show how things are related to, or connected with, each other, considering aspects such as causality and correlations
Review	Make a critical survey of a point or idea
State	Present main points in a brief, clear way
Summarize	Give a brief account of the chief points of an argument, omitting minor details
Trace	Describe progress, evolution or development from some point of origin

The following example illustrates how these different terms may be used in a question, and how they specify the different types of answers required. Some questions may simply ask for factual knowledge; others will seek to assess your analytical and critical skills, and to test your judgment. Questions may also test your ability to explore linkages between theory and practice.

- (1) Define the term sustainable development.
- (2) Trace the development of the notion of sustainable development from the post-World War II period to the present day.
- (3) "The concept of sustainable development has contributed little in concrete terms to the well-being of the planet". Discuss.
- (4) Critically analyze the concept of sustainable development, highlighting strengths and weaknesses, and illustrating your answer with examples.

#### • Plan your answer

Answering a question well requires (i) a good understanding of the subject matter, and (ii) effective communication of ideas and arguments to your reader. The latter requires that you plan your ideas, and present your arguments in a logical and reasoned sequence, particularly when writing essays. It may be useful to set the main points of your answer down on paper, either as bullet points or in the form of a diagram or mind map. Identify (i) the content that you want to include in your answer, (ii) the sequence in which you will present your material, and (iii) linkages between the different points you would like to make. Constantly refer back to the set question to ensure that you are indeed answering the question which you were set.

#### • Structure your answer

A well-structured essay includes:

- (i) an introduction which sets the scene for the material you will be discussing and leads into the subject of the essay. An introduction should show an understanding of the subject matter, looking at the issues raised by the question, and outlining the main issues you intend to discuss;
- (ii) a middle section during which you present and develop your arguments;
- (iii) a **conclusion** which sums up your work and rounds off your writing.

None of the above are optional extras so ensure that you have all these components in your answer!

#### Use paragraphs in your writing

Use paragraphs to structure and sub-divide your arguments, making sure that there are clear themes within each paragraph. Ensure that your ideas flow, and that there is a logical sequence between paragraphs. Always bear in mind that the examiner cannot read your mind, and that clarity of thought and presentation is thus paramount.

#### • Use an appropriate writing style

The convention with technical and scientific writing is that one should adopt an impersonal third person style using the passive voice. You are not being asked to creatively express your opinions, but rather to make a reasoned argument based on the evidence. For this reason, avoid statements such as 'I think that it is important to consider religion as a factor in environmental ethics'; instead, opt for statements along these lines: 'There is sound argument for considering religion as a key influence in environmental ethics'.

#### • First impressions matter!

Do not underestimate the power of first impressions. Aside from the content of your work, it should be well presented and it should look professional. Ensure that you use clear formatting and that you fully proofread your work before submission. Presentation is taken into account when assignments are graded.

# Referencing

You should reference **all material** used in your writing **which is derived from the work of others**. The purpose of referencing is two-fold: (i) to acknowledge the sources that you are using, and (ii) to provide the reader with sufficient detail to be able to find the information you are referring to.

It is important to cite not only print publications but also electronic sources, if you are using these. However, be particularly careful in ensuring the rigour of material posted online. Wikipedia references are not acceptable as an academic source!

There are several different referencing standards which you may make use of; whichever style is chosen; it is important to be consistent and to use only **one** style throughout a piece of work. As a guideline, we would recommend using the Harvard style. Examples of the Harvard style are given below, and further information on these and other referencing guides is freely available online.

#### Reference list citations

- List references alphabetically in your reference list. The reference list should be placed before any appendices.
- List references by the same author in chronological order. If an author has two or more publications within the same year, list these in alphabetical order, adding (a), (b), (c), etc. to every instance in that year.

Book with 1 author	Barry, J 2007, Environment and Social Theory, Routledge, Oxon.	
Book with 2 or 3 authors	Carley, M & Christie, I 2000, <i>Managing Sustainable Development,</i> Earthscan, London.	
Book with 3 or more authors	Mendler, SF, Odell, W & Lazarus, MA 2005, <i>The HOK Guidebook to Sustainable Design</i> , Wiley, New Jersey.	
2 <sup>nd</sup> or later edition of a book	Barrow, CJ 2006, Environmental Management for Sustainable Development, 2 <sup>nd</sup> edn, Routledge, London.	
Edited book	O'Riordan, T (ed) 2000, Environmental Science for Environmental Management, Prentice Hall, Harlow.	
Chapter in an edited book	Dolman, P 2000, 'Biodiversity and ethics' in: T O'Riordan, (ed), Environmental Science for Environmental Management, pp. 25-50. Prentice Hall, Harlow.	
Corporate author	Department of Energy 1980, Projections of Energy Needs, HMSO, London.	

Journal article with 1 author	Czerniak, J 1997, 'Challenging the pictorial: Recent landscape practice', Assemblage, vol. 15, no. 34, pp. 110-120.
Journal article with 2 or more authors	Burgi, M, Hersperger, AM & Schneeberger, N 2004, Driving forces of landscape change – current and new dimensions, Landscape Ecology, vol. 6, no. 19, pp. 857-868.
Unpublished thesis	Bouchet-Bert, L 2002, 'When humans entered the northern forests: An archaeological and palaeoenvironmental perspective', MA dissertation, University of Calgary.
Web document	Florek, S 2003, <i>Megafauna extinction: patterns of extinction</i> , Fact sheet, Australian Museum, Sydney. Available from: https://australianmuseum.net.au/megafauna-extinction-theories-patterns- of-extinction [15/09/19].
Web document (no publication date)	Mosden, K n.d., <i>Can ecopsychology save the wilderness debate?</i> Available from: http://www.ecopsychology.org/journal/ezine/wilderness_debate.html [15/09/09].

#### In-text citations

 References to authors' surnames and dates of publication should appear in the text, with full publication details listed at the end of your work. In-text citations should adopt the following format:

Dobrin (2002) argues that...

or

There are three main approaches to ethics – virtue ethics, consequentialist ethics and principled ethics (Dobrin 2002).

• If there are two or three authors, list all authors in the in-text citation. If there are more than three authors, list the first author, followed by 'et al.'. Provide full details of *all* authors in the reference list.

Carter et al. (1989) note that...

If referring to multiple documents by the same author, list these in chronological order.

Johnson (1999, 2002a, 2002b) theorized that...

• When referring to a specific statement or text which can be located in a part of the publication, provide page numbers.

Stewart (1982, p. 6) notes that "engineers are vital to the survival of the planet".

• Quotations over 30 words long should be given in a separate paragraph, indented from the text margin, without quotation marks and set in a smaller font.

Many hundreds of species of birds typically migrate at night, and it is well known that fires and artificial lights attract birds during migration, particularly when the sky is cloudy and the ceiling is low...In some instances, humans have exploited the attraction of migrating and local birds to lighted buildings, floodlights and spotlights. In one early example, hunters used a simple reflecting lamp to attract shorebirds at night. (Gauthreaux Jr. & Belser 2006, p.14)

You may find it useful to make use of referencing software, such as RefWorks – the latter is freely available to students through the University of Malta library. This software stores and organizes your bibliographic references and reproduces them in the required format for citation. The University of Malta library offers online guidance material relating to RefWorks as well as other library-related guidelines and policy documents.

# Tips for examinations

Examinations are designed to test your knowledge of a subject, but are not intended to 'catch you out'. You should approach examinations as an opportunity to display what you have learnt and how you are capable of applying that knowledge.

- It may be useful to prepare practice answers to sample examination questions prior to the exam.
- Arrive at your examination in good time. Ensure that you know the location of the venue, and that you have brought any required materials with you.
- Read the instructions given on your examination paper carefully! Answering the wrong number of questions or the wrong categories of questions are common mistakes, which are very costly.
- Take some time to read through the entire examination paper before starting your work.
- Some students find it useful to prepare outline notes for the various questions set in an examination paper, before answering any question in full. The advantage of this method is that it allows for a 'breathing space' giving you time to think of additional points for your first answer, while you prepare outline notes for your other answers.
- Always answer all set parts of a question.

- Ensure that you allow enough time for each question. A frequent mistake made by students is spending too much time on initial questions and then rushing through later questions. Remember that you will be assessed on the whole of your paper!
- Calculate how much time you can dedicate to each question before starting your work and stay within these limits.
- Try to allow enough time to read through your answers before submitting your examination paper.
- Also, try to ensure an acceptable standard of legible handwriting!

# Criteria for marking

Your work will be assessed on the basis of several criteria, including factual knowledge, critical ability, accuracy of analysis and argument, as well as initiative and creative thinking. In particular, your examiners will be seeking to assess your skills in picking out relevant material to present or support an argument. Remember that padding is never looked upon favourably, so ensure that any material you include in some way contributed to your answer. Your work will also be awarded marks for good structure, presentation and style.

The marking scheme presented hereunder is intended for your guidance, and applies to all **undergraduate** courses at the University of Malta.

Descriptor	Mark range	Grade
Work displaying exceptional quality Exceptional performance showing comprehensive and critical understanding and application of the subject matter. Evidence of extensive additional reading/research/work.	90-100%	A+
Work displaying comprehensive and critical understanding Superior performance showing a comprehensive and critical understanding of the subject matter. Evidence of considerable additional reading/research/work.	80-89%	A
Work displaying comprehensive understanding Performance is typified by a very good working knowledge of subject matter. Evidence of a moderate amount of additional reading/research/work.	75-79%	В+
Work displaying substantial understanding Above average performance, with a working knowledge of subject matter. Evidence of some additional reading/research/work.	70-74%	В

Work displaying sound understanding Average performance. Evidence of little reading/research/work.	60-69%	C+
Work displaying satisfactory understanding Adequate performance. No evidence of additional reading/research/work.	55-59%	С
Work displaying satisfactory understanding with shortcomings Adequate but inconsistent performance. No evidence of additional reading/research/work.	50-54%	D+
Work displaying basic understanding Marginal performance, satisfying minimum criteria.	45-49%	D
Pass When assessment is based on a Pass/Fail basis only. Such a result is not taken in consideration for calculating the final weighted average mark and for award classification purposes.	Not applicable	Ρ
Work displaying inadequate understanding to varying degrees	0-44%	F <sup>1,2</sup>
		1
<sup>1</sup> Compensated Pass Performance in the assessment of a Compensatable Study-Unit that is deemed to be just below marginal pass but is deemed to be compensated by good performance in other units (vide regulation 48).	35-44%	СР
<ul> <li><sup>1</sup>Compensated Pass</li> <li>Performance in the assessment of a Compensatable Study-Unit that is deemed to be just below marginal pass but is deemed to be compensated by good performance in other units (vide regulation 48).</li> <li><sup>2</sup>Unjustified absence for an assessment, or failure to hand in assigned work on time, or ineligibility to take assessment due to unapproved absence from lectures shall be considered an F with 0 marks in the calculation of the year average mark.</li> </ul>	35-44% 0%	CP F

# The marking scheme below applies to all **postgraduate** courses commencing in October 2021 or later:

Descriptor	Mark range	Grade
Work of excellent quality Superior performance showing a comprehensive and critical understanding and application of the subject matter. Evidence of extensive additional reading/research/work.	80-100%	A
Work of very good quality Performance is typified by a very good working knowledge of subject matter. Evidence of a considerable amount of reading/research/work.	70-79%	В

Work of average quality Average performance showing a good working knowledge of subject matter. Evidence of sufficient reading/research/work.	55-69%	С
Work of fair but below average quality Performance showing considerable but incomplete understanding of the subject matter. Evidence of a fair amount of reading/research/work.	50-54%	D
Work of marginal quality Performance showing minimal understanding of the subject matter, with no evidence of additional reading/research/work, which must be compensated by higher marks in other units in order to be eligible for the Postgraduate Award.	45-49%	E
Pass When assessment is based on a Pass/Fail basis.	Not applicable	Р
Unsatisfactory, failing work in any study-unit other than a dissertation.	0-44%	F
Unsatisfactory, failing work in the dissertation study-unit.	0-49%*	F
Unsatisfactory, failing work in a practicum Study-Unit, where such is indicated in the course Bye-Laws.	0-54%	F
Unjustified absence for an assessment, or failure to hand in assigned work in time, or ineligibility to take assessment due to unapproved absence from lectures. Shall be considered as F with 0 marks in the calculation of the average mark.	0%	F
Temporary grade for (a) incomplete work due to justifiable reasons (illness, approved absence, etc.) for which the assessment date has been postponed or the deadline for submission of work extended, or (b) work which Is being considered in terms of the disciplinary procedures stipulated in the University Assessment Regulations.	Not applicable	I

\* The minimum pass mark for dissertations is 50%.

For further details, please consult the general regulations for university postgraduate and undergraduate awards, published by the Office of the Registrar. Please refer also to the University Assessment Regulations, available on the same webpage.

It is furthermore recommended that you familiarize yourselves with the specific bye-laws applicable to the course you are following. Bye-laws for all courses offered by the Institute of Earth Systems can be accessed online.

# Section 5 Dissertations & research/practice-oriented projects

# Selecting a topic & undertaking research

When preparing your proposal, whether for a dissertation or a research/practice-oriented project, ensure that you will be happy to work on your chosen subject for a considerable period of time. Also ensure that your proposal is pragmatic given your time and resource constraints. Carry out a broad survey of the literature before writing your proposal, as you otherwise risk replicating work already done by others, and there is little benefit in seeking to re-invent the wheel!

In order for your proposal to be accepted, there will need to be a member of staff with sufficient expertise to supervise your work. Although your supervisor will guide you throughout your studies, remember that this is **your** work. Seek help whenever you need to but also learn to work independently. Also make allowances for your ideas to evolve as you commence your work. It is often the case that your proposal will change as you read more and gain better knowledge of the field. However, it is also important that your work is constantly guided by clear objectives.

You will make your life easier if you keep track of bibliographic references from the start – as noted above, software packages such as RefWorks can be very useful for this purpose. Otherwise, you will waste much time when writing up in chasing after books and journal papers!

Also ensure that you regularly back-up your work, in case of computer failures.

Ensure that any research is conducted in an ethical manner. In particular, ensure that you follow principles of informed consent, and that any sensitive personal data collected is stringently safeguarded. As noted above, if you are sampling species of flora and fauna, ensure that any collection of specimens is only carried out if absolutely necessary, and that this is kept to the bare minimum.

## Supervisory procedures

In preparing for your research it is important to be aware of and consider the general principles set by the University of Malta concerning the supervision of postgraduate dissertations and doctoral theses.

Please also note the following supervisory guidelines specific to the Institute of Earth Systems, which apply both to undergraduate and to postgraduate courses, and which are intended to ensure that there is a good working relationship between students and supervisors, and to safeguard the rights of both.

- 1. It is to be understood that 'supervision' implies academic guidance, direction and advice. Ultimate responsibility for the work produced lies with the student.
- 2. The supervisor is not responsible for any incorrect or inappropriate use of grammar, spelling mistakes, any carelessness or typos; liability lies with the student. The supervisor will merely point out this inadequacy (especially where this is blatantly excessive) and it will be up to the student to ensure corrections are made prior to submission of the completed work. However, students are expected to make an effort to ensure proper proof-reading of their work, before submitting it to supervisors for review.
- 3. Supervisors are not responsible for approving parts or the whole of a dissertation (or project report) although they are expected to give constructive feedback to first drafts intended to improve the quality of the work; feedback is to be given in a reasonable time, normally within four weeks of receipt. Supervisors may guide students on the development of chapters.
- 4. Supervisors should not normally approve or provide further guidance in response to corrected first drafts of individual chapters or group of chapters or of the whole work. Any further revisions or corrections are at the complete discretion of the supervisor. If the supervisor forms part of the Board of Examiners, the total mark assigned by the supervisor will take into account the quality of the first draft.
- 5. Students have to learn to work around the schedule of their supervisor/s. Students need to bear in mind that whilst supervisors endeavour to provide feedback as quickly as possible, they also have various other teaching, research and administrative commitments, priorities of which are the prerogative of the supervisors.
- 6. Time management is the student's responsibility throughout, and it is in their interest to plan well ahead to ensure that supervisors are available at times deemed crucial to the research. Supervisors shall not be held liable as a result of a student's inefficient time management.
- 7. Students are not expected to show up at the Institute without prior warning; an appointment, giving adequate notice, is to be sought via an e-mail message, which, subsequently requires due confirmation.

- 8. If and when calling a supervisor's office, students are kindly reminded to ask whether it is convenient for him/her to take the call at the time. Internet chat facilities, Skype or mobile phone calls/SMS messages are private and are not an acceptable means of communication (unless otherwise indicated/agreed upon by the supervisor beforehand).
- 9. The supervisor has responsibilities related to the basic principles of academic integrity and professionalism. If the supervisor is withdrawing from supervising a student, this process has to be done in consultation with the Director of the Institute if they are unable to resolve interpersonal conflicts which are impeding satisfactory academic progress. The supervisor must give reasonable notice in writing of the withdrawal of supervision to the student, the Director of the Institute and/or the second supervisor (if available). The second supervisor will normally remain as supervisor until another supervisor is in place or the student is withdrawn. The replacement supervisor is expected to be negotiated by the Director of the Institute, the student, and the replacement supervisor in consultation with the withdrawing supervisor.
- 10. Any publications based on the dissertation (or project report) are to include supervisors as co-authors. The student should in all cases be listed as first author, with other supervisors as secondary authors.
- 11. Students are expected to be familiar with the University's overall policies, in particular those governing supervision, as well as the bye-laws of the course which they are following.

# Declaration of authenticity

You will need to include a signed declaration of authenticity when submitting your dissertation or project report, certifying that it is your own original work and that it has not previously been submitted elsewhere. Within the same form, you are also required to declare that you have abided by the University's Research Ethics Review Procedures.

Templates for undergraduate, Master's and Doctoral students are available online.

# Section 6 Getting support

# University support services

Remember that as a student of the University of Malta, you have access to a number of academic support structures. Familiarize yourself with the library and with its various collections. Remember that in addition to print collections, the library also provides you with access to electronic material.

The University also provides several social support structures. These include Counselling Services, Students Advisory Services and the ACCESS Disability Support Unit. Details of these and other services can be accessed online.

If you have any queries or problems relating to your studies, you should seek advice from the Institute's staff in the first instance. If your problem lies with a specific study-unit, then contact the lecturer concerned and/or the study-unit coordinator. Should your problem remain unresolved or for other matters, you can also contact your course coordinator, the Institute's administrative staff, the Division Coordinator, the Institute's Director, or other Institute staff.

In cases where problems persist, you are also free to consult the following:

- The Earth Systems Association ESA (representing UM Earth Systems students)
- Kunsill Studenti Universitarji KSU (UM Students' Council)
- The Office of the Registrar
- The Pro-Rector for Students & Staff Affairs and Outreach, Professor Carmen Sammut
- The Commissioner for Education at the Office of the Ombudsman.

# IT services

University's IT Services offer orientation courses for students to get accustomed to the Virtual Learning Environment (VLE), as well as various user guides relating to other IT aspects. For further information, please consult the IT Services website.

You may also wish to avail yourself of software provided by IT services, either free of charge or at discounted rates. Further details are available from the IT services website.

Students are advised to ensure that there is no misuse of computer facilities, particularly when using the facilities made available at the University of Malta. Please refer to the provisions of the Maltese Criminal Code concerning computer misuse.

# Institute staff

In case of any difficulties throughout your course, please do not hesitate to contact us. We are freely available to assist you and will endeavour to help you out to the best of our abilities. However, please do abide by the official student hours which are published at the beginning of the academic year and which are available on our website; if you are unable to adhere to established student hours, then contact the individual concerned to set an appointment.

The Institute of Earth Systems presently has two blocks of offices at the Msida campus of the University of Malta. The Division of Environmental Management and Planning is located on the 3<sup>rd</sup> floor of the Chemistry and Pharmacology Building in the vicinity of Car Parks 2 and 3, while the Division of Rural Sciences and Food Systems is located at the Agriculture Farmhouse in Car Park 6. You may wish to consult the map of the Msida campus.

Specific contact details for academic and administrative queries will be provided to the different student groups, relating to the different courses concerned. For administrative matters relating to your course, contact the administrative staff – relevant concerns may include issues with course registration, timetables, eSIMS records and lecture venues, amongst others. For any academic matters, contact your lecturers and tutors. In particular, if you feel you require help with course material, we strongly encourage you to speak to your lecturers to arrange for tutorial sessions.

# Section 7 Communication with students

# University email account

Details of your University of Malta email account, which will grant you access to a range of essential facilities on the University website, are provided within your letter of acceptance to the course. Note that all formal correspondence will be directed to this email account and therefore ensure that you maintain adequate storage space for incoming mail at all times. In addition, make sure that you check your University of Malta email account regularly, at least on a daily basis, as you may otherwise miss out on important notices. Your University of Malta email account should also be checked during recess periods.

It is very important that you activate your IT Services User ID and University email account as soon as you receive your letter of acceptance. This will give you access to all official University notices and communications which are sent to this account.

#### eSIMS

The University holds all its students' records on SIMS – the Student Information Management System - to which all Faculties, Institutes and Centres have access as appropriate. Students may view their academic record, as well as their personal and course details, through eSIMS – the University's Student Portal. eSIMS is the forum through which you should register for study-units and DegreePlus activities, and annual enrolment and publication of study-unit results are also carried out online through this system.

For access to eSIMS, you will require the same User ID and password as are used to access your email account.

# Virtual Learning Environment (VLE)

It is also important that you familiarize yourself with the University's Virtual Learning Environment (VLE). The VLE is a web-based learning environment, through which tutors can interact with students. It will be used to provide learning materials and notices, in electronic format, for your various study-units. Please also note that you will be required to submit assignments through the VLE system.

We sincerely hope that your experience with us will be a pleasant and fruitful one. Seek to expand your horizons with this course. Push yourself beyond the areas you are already comfortable with, and try to think out of the box. Benefit from the various learning opportunities available to you, not just at the Institute of Earth Systems but also those offered by other faculties and institutes at the University. Open discussion is strongly encouraged, provided that this is conducted in a manner respectful to all. Likewise, we encourage you to accept constructive criticism in the manner in which it is intentioned, and to deliver constructive criticism yourself when you see fit. The tutors you will have throughout your course are there to guide you, but it is up to you to fully develop your own potential.

Above all, we hope that you will enjoy your studies and your time at the University of Malta! We wish you every success in your course and hope that you will have a pleasant experience and that you will continue with your learning endeavours in the future.

Good luck!

This handbook was compiled by E Conrad, with subsequent amendments by M Cassar and B Gambin. The current version was reviewed and updated in September 2023 by M Scerri and M Cassar. Any further updates and official amendments to specific and general regulations, posted and published on the University website or circulated in hard copy, apply.