'From Macro to Micro'

STUDENT HANDBOOK
## CONTENTS

<table>
<thead>
<tr>
<th>Section</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>WELCOME</td>
<td>4</td>
</tr>
<tr>
<td>PREPARATION: RECOMMENDED READING</td>
<td>5</td>
</tr>
<tr>
<td>STUDY SKILLS</td>
<td>6</td>
</tr>
<tr>
<td>TACKLING THE READING LIST</td>
<td></td>
</tr>
<tr>
<td>READING &amp; NOTE-TAKING</td>
<td></td>
</tr>
<tr>
<td>APPENDIX: READING</td>
<td>9</td>
</tr>
</tbody>
</table>
Thank you for applying to take part in the Biology/Human Sciences Summer School at Wadham. As you are aware the current situation with COVID-19 has meant that the Summer School has been cancelled. Understandably, this is disappointing for you and for our tutors and undergraduate helpers unable to share their passion and knowledge for Biology and Human Sciences with you. In lieu of being able to participate in person, the handbook and attached resources aim to give an idea of the content and associated reading. Although not the same as being able to take part in the Summer School, it is hoped that these resources can be used to develop both your interest and your expertise in the study of Biology, Human Sciences and related subjects.

The handbook and resources are taken from those used previously in running the Summer School. The handbook can be used alongside the slides from the sessions to explore the central question, “What Makes Us Human?” These resources would be an excellent way of developing your understanding and skills beyond school; something that would really make you stand out on university applications.

Please be aware some of the handbook may make reference to sessions you will not have covered. Similarly, whilst the presentation resources have been included there is obviously no requirement for you to prepare one. It has been included simply to give some ideas of relevant questions based on the stimuli provided and provide some tips for studying successfully at Oxford.
The main theme of the Biology Summer School at Wadham will be ‘Macro to Micro’. We will be exploring the breadth of academic enquiry in the biological sciences, through lectures and visits to the departments/museums in Oxford, and with the cross-disciplinary seminar series, ‘What makes humans different?’.

**RECOMMENDED PREPARATORY READING FOR SEMINAR SERIES:**


STUDY SKILLS

This guidance is intended to introduce you to how to get the most from your teaching whilst at the summer school and beyond. We have tried to answer the questions that are likely to arise before and during your time in Oxford: it is not intended to be a definitive set of rules, because each student has their own approach to work and methods for effective studying.

TACKLING THE READING LIST

Initially reading lists can appear daunting and most students feel that they have to read everything on the list in order to come to a full understanding of a topic. You will have a limited amount of time to prepare for your class and the resources you need might not always be immediately available (which is true in any university); so be pragmatic:

- Select extracts carefully from the recommended texts to suit your purposes.
- Discuss ideas with the student ambassadors: they may be able to provide alternative perspectives.
- Aim to gain an in-depth understanding of the books and/or articles you do read rather than attempt to read everything. For articles, first read the abstract.
- Organise your time well – aiming to read one of the texts per day in advance of the summer school is much easier than aiming to read all the texts at once at the last minute.

READING & NOTE-TAKING

We all know how to read, but reading academic texts in a short space of time requires a very different set of skills. These skills will be vital when you are studying for an undergraduate degree so try practicing them as early as you can. Rather than just deciding to begin at the beginning, it is worth thinking about how to approach reading a book.

- Begin your reading by browsing or surveying the book/article. See how the ideas in the book/article are structured. From chapter headings and subheadings, you may be able to note those sections that are most relevant for your purposes.
- Check the publication date. This may alert you to the position of the literature in relation to recent ideas or current data.
- Read the abstract, foreword, preface and introduction of books as these tend to contain the structure of the book and a summary of the main themes.
- First read the abstract, introduction and discussion of articles as these provide context and findings from the research described in the methods and results sections.

- Conclusions provide a summary of the main ideas and may point to a different perspective arising from the author’s discussion of the material.

- Indices are located at the back of some books. They should not be ignored. They list the topics covered in the book with appropriate page numbers for each subject. Using the index for references to a specific topic will speed up your reading.

- For factual information, it is often unnecessary to read the whole book/article. Carefully skim to select the most useful parts.

- If you have a particularly difficult piece to read, you may need to read it more than once – first to understand the basic ideas, then more closely to get answers to the specific questions you have in mind. You may need to go back and read a simple text as an introduction.

Notes are taken for different purposes and these will determine the amount of detail required. You might be tempted to try to write down everything you read. This is often not practical or even desirable. When making notes look for the key points or main ideas. These may be summarised in the preface, introduction and at the beginning of each chapter of a book, or in the abstract/introduction/conclusion of an academic article.

At university, tutors are not looking for a regurgitation of your notes. Be critical when you read academic texts. Ask yourself some of the following questions:

a) Is the material well presented? If experimental in nature, is the design robust? What did they test and how?

b) How has the author approached the question?

c) Do the facts and data support the author’s conclusion?

d) How does the author’s perspective compare with those of others who have written on the same subject?

e) What do you think? Is there anything else you think is relevant?

As you read, you should begin to develop argument(s) to discuss. When you’re reading, always have in mind the question you are trying to answer as this will help you to focus your reading and note-taking.
GETTING THE MOST OUT OF THE SEMINAR SERIES

The main aim of a seminar is the discussion of ideas and to get stimuli from the tutor and the ambassadors. During the daily seminar series, you will be provided with preparatory reading, activities and discussions surrounding the topic of ‘What makes humans different’.

Seminars may begin with the tutor explaining some of the more difficult concepts and placing them in broader context, but this should develop into a two-way exchange of ideas, resulting in both tutor and student coming to a new understanding of the subject matter.

Tutors are experts at helping you improve your skills in written and verbal reasoning and argumentation.

To get the most out of the seminar sessions:

- Remember to take a pen and paper!
- Take short notes if it helps you remember topics and ideas covered.
- Feel free to question your tutor until you fully understand an idea/concept.
- If you don’t know the answer to something, ask!
- Be prepared to speak up in a discussion.
- After your seminar, take a few minutes to write down what you have learnt while it is still fresh in your mind.
- Enjoy yourself
APPENDIX: READING