

# Human Biology Level 3 (Semester Year 2018/19)

View Online



80 items

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## General Reading (8 items)

These resources are relevant to several areas of the Human Biology Course and should be useful throughout the year.

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**Berne & Levy physiology** - Robert M. Berne, Matthew N. Levy, Dawson Books, 2018

**Book** | **Recommended** | Core physiology textbook suitable for Level 2 revision and basic coverage of L3 material.

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**Principles of anatomy and physiology** - Gerard J. Tortora, Bryan Derrickson, Gerard J. Tortora, c2011

**Book** | **Recommended** | This is a basic guide to anatomy and physiology. It will be particularly useful if there is anything you'd like to revise before coming to a class.

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**Medical physiology: a cellular and molecular approach** - Walter F. Boron, Emile L. Boulpaep, c2012

**Book** | **Recommended** | this large textbook contains a detailed scientific account of many aspects of physiology that will help you with your studies this year. It includes relevant cellular and molecular biology and includes examples of clinical relevance.

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**Guyton and Hall textbook of medical physiology** - John E. Hall, Elsevier Science (Firm), 2016

**Book** | **Recommended** | A detailed medical physiology textbook covering many aspects of physiology that you will cover this year.

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**Wheater's functional histology: a text and colour atlas** - Barbara Young, Geraldine O'Dowd, Phillip Woodford, Paul R. Wheater, Elsevier Science (Firm), c2014

**Book** | **Recommended** | A good, basic histology text with detailed illustrations.

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**Histology and cell biology: an introduction to pathology** - Abraham L. Kierszenbaum, Laura L. Tres, 2016

**Book** | **Further** | More detailed reading for histology relevant to several blocks.

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**Pathophysiology of disease: an introduction to clinical medicine** - Askews & Holts Library Services, 2014

**Book** | **Further** | This e-book will be a useful reference for some of your PBL topics, relating Human Biology to pathological processes.

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## Home · BoB

**Audio-visual document** | **Recommended** | Excellent resource for documentaries and radio programmes relevant to course content - use the search facility to find programmes that interest you.

## Cells and Tissues (2 items)

These resources are particularly useful for block 1 but will help you throughout the course

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**Cellular physiology and neurophysiology** - Mordecai P. Blaustein, Askews & Holts Library Services, 2012

**Book** | **Recommended** | This is a great book if you are struggling with the concepts in your membrane transport sessions. You will also find useful information on the electrical properties of membranes and the cellular mechanisms of muscle contraction here.

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**Membrane Potential Tutorial**

**Webpage** | **Recommended** | A very useful online tutorial that explains the Nernst equation and other aspects of electrophysiology.

## Nutrition (6 items)

Resources related to the nutrition block, and for those of you combining Human Biology and Nutrition

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**Introduction to human nutrition** - Nutrition Society (Great Britain), Ebooks Corporation Limited, 2009

**Book** | **Recommended**

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**Dietary reference values for food energy and nutrients for the United Kingdom: Report of the Panel on Dietary Reference Values of the Committee on Medical Aspects of Food Policy** - Committee on Medical Aspects of Food Policy. Panel on Dietary Reference Values, Great Britain. Dept. of Health, 1991

**Book** | **Further**

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**British Nutrition Foundation** - British Nutrition Foundation

**Website** | **Recommended**

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**Obesity Action Scotland**

**Website** | **Recommended**

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**The Danish tax on saturated fat: why it did not survive** - Vallgård et al S

**Article** | **Recommended**

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**Scientific Advisory Committee on Nutrition**

**Website** | **Further**

## Musculoskeletal System (1 items)

**The excitation-contraction coupling mechanism in skeletal muscle** - Juan C. Calderón, 2014

**Article** | **Further** | A detailed review of molecular aspects of ECC in skeletal muscle

## Cardiovascular and Respiratory Systems (9 items)

**An introduction to cardiovascular physiology** - J. R. Levick, c2010

**Book** | **Recommended** | A highly recommended, clearly written textbook.

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**Respiratory physiology: the essentials** - John B. West, c2012

**Book** | **Recommended** | A classic book on respiratory physiology, this is a very small book that contains a wealth of information.

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**The ECG made easy** - John R. Hampton, Dawson Books, 2013

**Book** | **Recommended** | Excellent, clear explanations of how to interpret abnormal ECGs.

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**EKG | Electrocardiogram**

**Webpage** | **Recommended** | A useful online resource on ECG interpretation.

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**Heart Murmurs and Sounds**

**Webpage** | **Recommended** | A useful online resource which explains what you hear when you listen to heart sounds. You should focus on the normal heart sounds, although this site has recordings and explanations of abnormal examples.

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**Treadmill Stress Testing: Background, Indications and Contraindications, Technical Considerations**

**Webpage** | **Recommended** | An article which is useful background reading on exercise testing in the clinical setting.

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**ACSM's resource manual for Guidelines for exercise testing and prescription** - Jonathan K. Ehrman, American College of Sports Medicine, c2010

**Book** | **Recommended** | Chapters 19 and 21 are recommended reading for your lab session on maximal exercise testing. The extract from Chapter 19 deals with the preparation, risk to volunteers and resting values. The section from Chapter 21 deals with conduct of the test, ends points and interpretation of data.

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<https://www.brit-thoracic.org.uk/document-library/delivery-of-respiratory-care/spirometry/spirometry-in-practice/>

**Webpage** | **Recommended** | Background Resource for your Lung Function Lab

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**High-altitude physiology and pathophysiology: implications and relevance for intensive care medicine** - Michael Grocott, 2007

**Article** | **Further**

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## Endocrine and Renal Systems (3 items)

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**Renal physiology** - Bruce M. Koeppen, Bruce A. Stanton, 2012

**Book** | **Further** | An easy-to-read book focusing on renal physiology with examples of how this applies to clinical conditions.

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**How animals work** - Knut Schmidt-Nielsen, 1972

**Book** | **Further** | Classic Reading on comparative Physiology - sections on temperature regulation are relevant to this block.

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**Animal physiology: adaptation and environment** - Knut Schmidt-Nielsen, 1983

**Book** | **Further** | A textbook on comparative physiology, but contains some relevant background on temperature regulation.

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## Senses (10 items)

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**Essential neuroscience** - Allan Siegel, Hreday N. Sapru, Heidi Siegel, c2015

[Book](#) | [Further](#) | Section 4 of this book covers some of the senses in this block.

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**Histology and cell biology: an introduction to pathology** - Abraham L. Kierszenbaum, Laura L. Tres, 2016

[Book](#) | [Further](#) | This book contains lots of material on the cellular aspects of all the different types of sensory receptor.

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**Receptors and transduction in taste | Nature**

[Webpage](#) | [Recommended](#)

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**The endocrinology of taste receptors** - Sara Santa-Cruz Calvo, Josephine M. Egan, 2015-4

[Article](#) | [Recommended](#)

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**Transduction mechanisms in vertebrate olfactory receptor cells.** - Schild D1, Restrepo D., 1998

[Article](#) | [Recommended](#)

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**Relationships between insulin release and taste.** - Tonosaki K1, Hori Y, Shimizu Y, Tonosaki K., 2007

[Article](#) | [Recommended](#)

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**Cephalic phase insulin release in healthy humans after taste stimulation?** - Just T1, Pau HW, Engel U, Hummel T., 2008

[Article](#) | [Recommended](#)

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**Microneurography: Recording Nerve Traffic Via Intraneural Microelectrodes in Awake Human Subjects** - YouTube

[Audio-visual document](#) | [Recommended](#)

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**Molecular basis of mechanosensory transduction | Nature**

[Webpage](#) | [Recommended](#)

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**Mechanisms of sensory transduction in the skin | Nature**

[Webpage](#) | [Recommended](#)

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## GI system (2 items)

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**Gastrointestinal Physiology**

[Webpage](#) | [Recommended](#) | sections dedicated to Molecular Mechanisms of Gastrointestinal Signaling (Ch 5), Gastrointestinal Hormones (8) and Neural Secretions and Regulation of Gut Functions (9).

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**Gastrointestinal physiology** - Leonard R. Johnson, 2014

[Book](#) | [Recommended](#)

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## Challenges: Individual and Society (8 items)

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**Rethinking homeostasis: allostatic regulation in physiology and pathophysiology** - Jay Schulkin, 2003

[Book](#) | [Further](#) | Further reading related to the homeostasis lecture

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**Endocrine and reproductive physiology** - Susan P. Porterfield, Bruce Alan White, Susan P. Porterfield, c2013

[Book](#) | [Further](#) | This short book is easy to read and contains clinical examples, it has several chapters relevant to the reproductive system.

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**The logic of life: the challenge of integrative physiology** - C. A. R. Boyd, Denis Noble, c1993

[Book](#) | [Further](#) | Background reading for the session on homeostasis

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**Bioethics: an introduction for the biosciences** - T. B. Mepham, c2008

[Book](#) | [Recommended](#) | Excellent introductory text on the topic of Bioethics.

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**Bioethics: an anthology** - Helga Kuhse, Peter Singer, c2006

[Book](#) | [Further](#) | A set of essays on specific topics in bioethics.

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**Social and ethical issues in mitochondrial donation: Fig. 1** - Rebecca Dimond, 2015-09

[Article](#) | [Recommended](#) | Additional reading for Bioethics Tutorial on three parent IVF

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**The ethics of creating children with three genetic parents** - Françoise Baylis, 2013-06

[Article](#) | [Recommended](#) | Additional background reading for tutorial on 3 parent IVF.

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**Biparental Inheritance of Mitochondrial DNA in Humans** - Shiyu Luo, C. Alexander Valencia, Jinglan Zhang, Ni-Chung Lee, Jesse Slone, Baoheng Gui, Xinjian Wang, Zhuo Li, Sarah Dell, Jenice Brown, Stella Maris Chen, Yin-Hsiu Chien, Wuh-Liang Hwu, Pi-Chuan Fan, Lee-Jun Wong, Paldeep S. Atwal, Taosheng Huang, 2018-12-18

[Article](#) | [Further](#) | Paper reporting that mitochondrial DNA can rarely be transmitted from father - relevant for ethics of 3 person IVF

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## Scientific Skills (21 items)

These resources are recommended to support the Scientific Skills lectures and workshops throughout the course.

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## Scientific Skills -Writing & Referencing (4 items)

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**Anglia Ruskin University Library - Harvard System**

[Webpage](#) | [Recommended](#) | A comprehensive guide to citing and referencing your sources.

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**Literature Searching and Library skills (MVLS) | University of Glasgow**

[Webpage](#) | [Recommended](#) | Links to a library reading list with lots of useful resources.

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**Reflective Writing Guide | UNSW Current Students**

[Webpage](#) | [Recommended](#) | This is a useful resource for your Reflective Writing Assignment.

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**How to write about biology** - Jan A. Pechenik, Bernard C. Lamb, Jan A. Pechenik, 1994

[Book](#) | [Recommended](#) | A general guide to all types of writing in biology, including lab reports and essays.

## Scientific Skills - Critical Appraisal (5 items)

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**How to read a paper: the basics of evidence-based medicine** - Trisha Greenhalgh, Ebooks Corporation Limited, 2014

**Book** | **Further** | This is an easy-to-read book which covers all types of research paper you are likely to come across in the medical literature.

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**A checklist to help students analyze published articles in basic medical sciences** - P. K. Rangachari, Sheella Mierson

**Article** | **Recommended** | This article contains a useful checklist for appraising scientific papers.

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**Critical Analysis of a Published Paper - critanal.pdf**

**Document**

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**Critical Appraisal of Scientific Articles: Part 1 of a Series on Evaluation of Scientific Publications** - Jean-Baptist du Prel, Bernd Röhrig, Maria Blettner, 2009

**Article**

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**Essential guide to reading biomedical papers: recognising and interpreting best practice** - Askews & Holts Library Services, 2013

**Book**

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## Scientific Skills - Numeracy , Maths & Statistics (6 items)

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**Introduction - Handbook of Biological Statistics**

**Document** | **Recommended** | A useful website which is an online textbook explaining how to choose the appropriate statistical test for a particular experiment, then apply that test and interpret the results.

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**Physiology by numbers: an encouragement to quantitative thinking** - R. F. Burton, 2000

**Book** | **Further** | A guide to all types of Physiological calculations.

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**Statistics for the life sciences** - Myra L. Samuels, Jeffrey A. Witmer, Andrew Schaffner, c2012

**Book** | **Further**

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**Statistics** - Murray R. Spiegel, Larry J. Stephens, Murray R. Spiegel, c2011

**Book** | **Further**

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**Discovering statistics using IBM SPSS statistics: and sex and drugs and rock 'n' roll** - Andy P. Field, c2013

**Book** | **Further**

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**Table or Graph?**

**Webpage** | **Recommended**

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## Scientific Skills -Poster Presentations (1 items)

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**Designing conference posters** - Colin Purrington

[Webpage](#) | [Further](#) | Useful tips on designing poster presentations

## Scientific Skills - Oral Presentations (3 items)

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### Preparing-for-an-ORAL-PRESENTATION.pdf

[Document](#) | [Recommended](#) | Some tips on how to prepare for an oral presentation

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### Using PowerPoint / University of Leicester

[Webpage](#) | [Recommended](#) | Basic principles of designing a PowerPoint presentation

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### Presentation Zen: What is good Presentation design?

[Webpage](#) | [Further](#) | A webpage on design aspects for PowerPoint slides

## Scientific Skills - Science Communication & Public Engagement (2 items)

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### Science communication: a practical guide for scientists - Laura Bowater, Kay Yeoman, 2013

[Book](#) | [Recommended](#) | This book contains ideas & advice for developing outreach activities.

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### BBC Radio 4 - BBC Inside Science

[Webpage](#) | [Recommended](#) | A magazine style radio programme covering a broad range of science topics, including biology, physics and chemistry. Frequently there are sections relevant to Human Biology, which may include controversial issues and cutting-edge research. Useful for improving your general knowledge of science, and examples of how science is presented to the public.

## Scientific Method and Research (2 items)

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### Essential guide to reading biomedical papers: recognising and interpreting best practice - Askews & Holts Library Services, 2013

[Book](#) | [Further](#) | This book takes an interdisciplinary approach, including philosophical, biological and statistical aspects of evidence in biomedical research. Topics include scientific methods, statistics, data interpretation, and ethics. Relevant for students interested in research careers.

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### The Journal of Physiology

[Journal](#) | [Recommended](#) | This is a link to the Journal of Physiology. It is recommended you access this Journal regularly to keep up to date with current ideas and findings relevant to Human Biology.

## Light Reading (8 items)

These books are aimed at a general readership and are for those of you who would like to do some wider background reading related to your degree subject when you want a break from study. They may not be directly related to course content, but are enjoyable reads.

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**Life at the extremes: [the science of survival]** - Frances M. Ashcroft, 2001

**Book** | **Further** | A very easy to read book with relevant physiology related to human biology at the extremes of temperature, altitude and depth.

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**Bad science** - Ben Goldacre, 2008

**Book** | **Further** | Read this for an understanding of how science can be mis-reported in the media, why evidence-based medicine is so important, and how amazing claims are made for non-scientific treatments. This book will encourage you to think critically about the rest of your reading.

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**The spark of life: electricity in the human body** - Frances M. Ashcroft, 2012

**Book** | **Further** | An easy read which covers a very wide variety of examples of the importance of ion channels. It is definitely light entertainment though, rather than a scientific read.

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**BBC Radio 4 - More or Less: Behind the Stats - Downloads**

**Webpage** | This is a link to the Radio 4 programme 'More or Less' podcasts. Several episodes feature segments relevant to medical / biology research. Demonstrates how statistics are used and abused in daily life; listening to this programme will help develop your general skills in critical thinking.

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**Bad pharma: how drug companies mislead doctors and harm patients** - Ben Goldacre, 2012

**Book** | **Further** | A view on the problems with the pharmaceutical industry relating to funding and publication of trials.

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**The spirit level: why equality is better for everyone** - Richard G. Wilkinson, Kate Pickett, c2010

**Book** | **Further** | This book is about inequalities in health and society and is especially relevant for those of you interested in Public Health.

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**Epic measures: one doctor, seven billion patients** - Jeremy N. Smith, 2015

**Book** | **Further** | What should be the priorities for Global Health? Relevant for students interested in global / public health issues.

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**The shape we're in: how junk food and diets are shortening our lives** - Sarah Boseley, 2014

**Book** | **Further** | A broad look at how modern society contributes to the rising problems of obesity - useful background for anyone interested in nutrition, obesity and public health.