

## HE + EXTENSION LESSON BLOCKS 2016/2017

### BLOCKS AVAILABLE:

	BLOCK	A	B	C	D	E	F	G
1	7 Dec	<b>MATHS</b>	<b>NATURAL SCIENCES</b>	<b>LAW</b>	<b>MEDICINE: BIOLOGY &amp; ETHICS</b>	<b>INTERNATIONAL POLITICS &amp; ECONOMICS</b>	<b>THEOLOGY &amp; PHILOSOPHY</b>	<b>ENGLISH</b>
2	11 Jan							
3	18 Jan							
4	8 Feb							
5	22 Feb							

Extension lessons are grouped in blocks of five sessions. Students should choose one block, with a reserve should that block be full. It is not essential (nor possible in many instances) that the block exactly matches the choice of degree subject but as the purpose of the extension lessons is to encourage independent thought and reading, this is not essential. Students of Modern Languages should, for example, select the English block (G).

### BLOCK CONTENT:

Block A – **APPLIED MATHS** – Mr Joe Wilkins

*NB It is not necessary to be studying either A level economics or physics*

Date	Class
Wed 7 Dec	<b>The use of algebra and geometry in modelling economic concepts</b>
Wed 11 Jan	<b>The use of statistics in economic analysis</b>
Wed 18 Jan	<b>The modelling process will be explored through an extended example of air resistance and parachutes. This will lead to an introduction to differential equations and some advanced calculus techniques, concentrating on their application to physics</b>
Wed 8 Feb	
Wed 22 Feb	

Block B – **NATURAL SCIENCES** – Dr Phil Evans

Date	Class
Wed 7 Dec	<b>What happens to light energy when it is absorbed by a molecule? How do receptors in the eye work?</b>
Wed 11 Jan	<b>Quantum ideas. Using orbital theory to understand molecular energy levels</b>
Wed 18 Jan	<b>Light and chemical reactions. Fluorescence and chemiluminescence.</b>
Wed 8 Feb	<b>How drugs work by binding to receptors and enzymes</b>
Wed 22 Feb	<b>Antibiotics: how they work and why they don't work as well as they used to</b>

Block C – **LAW**– Ms Andrea Webb

Date	Class
Wed 7 Dec	<b>Sheep dip and establishing liability</b>
Wed 11 Jan	<b>Can contraception be criminal?</b>
Wed 18 Jan	<b>Access to justice: is justice now the privilege of the well-off?</b>
Wed 8 Feb	<b>Assessing the M’Naghton rules: is the law on insanity fit for purpose?</b>
Wed 22 Feb	<b>Use of animal tissues and organs- crossing the Rubicon?</b>

Block D - **MEDICINE: BIOLOGY AND MEDICAL ETHICS** - Dr Kit Byatt and Dr Rob Doran

*Students will be allocated to one of the two groups below at the first session*

Date	Class (Dr Byatt)
Wed 7 Dec	<b>Respiratory medicine – mechanisms of breathlessness in health and disease</b>
Wed 11 Jan	<b>Cardiovascular medicine – what causes fainting?</b>
Wed 18 Jan	<b>Neurological medicine – dementias: causes and effects</b>
Wed 8 Feb	<b>When is medical experimentation on animals (or humans) acceptable, and when is it not? or</b>  <b>Why can vets euthanize animals in distress, but doctors can’t do the same for humans?</b>
Wed 22 Feb	<b>Can the UK afford the medicine we want, or should we provide the medicine we can afford?</b>

Date	Class (Dr Doran: medicine and surgery)
Wed 7 Dec	<b>How did we get here? History of surgery since ancient times and how and why things have changed to date</b>
Wed 11 Jan	<b>What is the scope? How medical practice shares a basic approach across specialities and yet all branches are becoming increasingly specialised? Eg Ophthalmology</b>
Wed 18 Jan	<b>Medicine: how do we know it works? Potential and limitations, research methods, presentation and how to assess them</b>
Wed 8 Feb	<b>Talking and listening to patients</b>
Wed 22 Feb	<b>So you wanna be a rock’n’roll star? Do you see a career in medicine? Why do we have a health service? Discuss</b>

Block E - **INTERNATIONAL POLITICS AND ECONOMICS** - Mr Adrian Tilley & Ms Majella White

<b>Date</b>	<b>Class</b>
Wed 7 Dec	<b>An introduction to international politics and economics (AJT &amp; MMW)</b>
Wed 11 Jan	<b>What now for American foreign policy? (AJT)</b>
Wed 18 Jan	<b>The challenge of terrorism (AJT)</b>
Wed 8Feb	<b>Schools of economic thought from Adam Smith to Milton Friedman (MMW)</b>
Wed 22 Mar	<b>Evaluating economic problems from an ethical perspective (the banking crisis, government debt and inequality) (MMW)</b>

Block F- **THEOLOGY & PHILOSOPHY** – Mr Joe Jenkins

<b>Date</b>	<b>Class</b>
Wed 7 Dec	<b>Introducing philosophy and theology</b>
Wed 11 Jan	<b>Literary tools for Biblical study. Why are there four gospels in the New Testament?</b>
Wed 18 Jan	<b>Plato, Aristotle and knowledge.</b>
Wed 8 Feb	<b>Examining some philosophical texts</b>
Wed 22 Feb	<b>Let's prove that God exists!</b>

G- **ENGLISH LITERATURE** - Mrs Helen Williams

The focus of these five sessions will be on building confidence with unfamiliar texts and practising the analysis of unseen texts, particularly orally, as practice for interview. Each session will be based loosely around a historical period looking at the major writers/genres of the time.

<b>Date</b>	<b>Class</b>
Wed 7 Dec	<b>Where did it all begin? Early English – Beowulf and other Anglo Saxon texts</b>
Wed 11 Jan	<b>Shakespeare's language- in-depth language analysis</b>
Wed 18 Jan	<b>Political writing in the eighteenth century- literature as an agent for social reform</b>
Wed 8 Feb	<b>The Victorian novel- applying discourse analysis to literary texts</b>
Wed 22 Feb	<b>Modernism- approaches to modernist and postmodernist texts</b>