

HE + EXTENSION LESSON BLOCKS 2016/2017

BLOCKS AVAILABLE:

	BLOCK	A	B	C	D	E	F	G
1	7 Dec	MATHS	NATURAL SCIENCES	LAW	MEDICINE: BIOLOGY & ETHICS	INTERNATIONAL POLITICS & ECONOMICS	THEOLOGY & PHILOSOPHY	ENGLISH
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	The use of algebra and geometry in modelling economic concepts
Wed 11 Jan	The use of statistics in economic analysis
Wed 18 Jan	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
Wed 8 Feb	
Wed 22 Feb	

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

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

Block C – **LAW**– Ms Andrea Webb

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

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

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

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

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

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

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

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.

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