1. **Title of the module**

CLAS8210 (CL821) – Ancient Greek Sciences: Astronomy, Cosmology and Physics

1. **Division or partner institution which will be responsible for management of the module**

Division of Arts & Humanities

1. **The level of the module (Level 4, Level 5, Level 6 or Level 7)**

Level 7

1. **The number of credits and the ECTS value which the module represents**

30 Credits (15 ECTS)

1. **Which term(s) the module is to be taught in (or other teaching pattern)**

Autumn or Spring

1. **Prerequisite and co-requisite modules**

None

1. **The course(s) of study to which the module contributes**

Optional for Optional for MA Ancient History and MA History and Archaeology of the Greek and Roman Worlds

1. **The intended subject specific learning outcomes.
On successfully completing the module students will be able to:**

8.1 Seal with complex academic issues for the study of cosmological theories, astronomy and physics based on their systematic understanding of these areas, and have a critical awareness of current research questions within the academic study of Ancient Greek Sciences;

8.2 Interpret a comprehensive a range of primary sources primarily for the study of ancient cosmology, astronomy and physics utilising techniques that are appropriate for their interpretation and critical evaluation;

8.3 Understand and articulate the complex relationship between Ancient Greek Philosophy and the Sciences (including astronomy, cosmology, mathematics, and physics);

8.4 Critically evaluate the philosophical thinking that links the cosmos to human existence in ancient Greece;

8.5 Demonstrate self-direction and originality in tackling and solving problems raised in the study of the complex intersection between philosophy, science and the cosmos in Ancient Greece ranging from the Geometric to the Hellenistic periods.

1. **The intended generic learning outcomes.
On successfully completing the module students will be able to:**

9.1 Exercise initiative and have taken personal responsibility for the development of their studies;

9.2 Respond to views and criticisms of others with the aim of improving their own working methods and techniques;

9.3 Make judgements independently in relation to the development of their studies in relation to new or challenging tasks;

9.4 Demonstrate their comprehensive knowledge and understanding, and to develop new skills to a high level.

1. **A synopsis of the curriculum**

Ancient Greek concepts of ‘rational science’ were vastly different from modern perceptions and discipline classifications. Its foundation was grounded in philosophical discussions that considered the nature of the cosmos and all that existed within it. This module demonstrates how the subjects were interlinked through a close analysis of the development of ancient astronomy, mathematics, cosmology and physics, from the Geometric to the Hellenistic periods. It discusses literary, philosophical and archaeological material.

The module begins with a discussion of the pre-Socratic philosophers’ introduction of the theory of the four elements: earth, air, fire and water that were present within everything, including the stars and the body. From here, students will examine how the theories on the primary cosmological elements were transformed into entire cosmological theories, which included the stars, animals and the human body. The module will finally proceed to discuss how advances in astronomical knowledge, mathematics and geography influenced the development of the sciences and engineering in the Hellenistic period.

1. **Reading list (Indicative list, current at time of publication. Reading lists will be published annually)**

Aratus, *Phaenomena* (any edition)

Evans, J. (1998). *The History and Practice of Ancient Astronomy*. Oxford: Oxford University Press

Gregory, A. (2011). *Ancient Greek Cosmogony*. London: Duckworth

Hippocrates: *Airs, Waters, Places; Nature of Man* (any edition)

Kirk, G.S., J.E. Raven, & M. Schofield 1983. *The Presocratic Philosophers: A Critical History*. Cambridge: Cambridge University Press.

1. **Learning and teaching methods**

Total Contact Hours: 20

Total Private Study Hours: 280

Total Study Hours: 300

1. **Assessment methods**
	1. Main assessment methods
* Commentary Review (1,000 words) – 20%
* Presentation Portfolio (1,500 words) – 40%
* Essay (3,500 words) – 40%

13.2 Reassessment methods

* 100% Coursework (4,500 words)
1. ***Map of module learning outcomes (sections 8 & 9) to learning and teaching methods (section12) and methods of assessment (section 13)***

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| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Module learning outcome** | *8.1* | *8.2* | *8.3* | *8.4* | *8.5* | *9.1* | *9.2* | *9.3* | *9.4* |
| **Learning/ teaching method** |  |  |  |  |  |  |  |  |  |
| Private Study | **x** | **x** | **x** | **x** | **x** | **x** | **x** | **x** | **x** |
| Seminar | **x** | **x** | **x** | **x** | **x** | **x** | **x** | **x** | **x** |
| **Assessment method** |  |  |  |  |  |  |  |  |  |
| Commentary Review | **x** |  | **x** | **x** |  |  | **x** |  | **x** |
| Presentation Portfolio | **x** | **x** | **x** | **x** | **x** | **x** | **x** | **x** | **x** |
| Essay | **x** | **x** | **x** | **x** | **x** | **x** | **x** | **x** | **x** |

1. **Inclusive module design**

The Division recognises and has embedded the expectations of current equality legislation, by ensuring that the module is as accessible as possible by design. Additional alternative arrangements for students with Inclusive Learning Plans (ILPs)/declared disabilities will be made on an individual basis, in consultation with the relevant policies and support services.

The inclusive practices in the guidance (see Annex B Appendix A) have been considered in order to support all students in the following areas:

a) Accessible resources and curriculum

b) Learning, teaching and assessment methods

1. **Campus(es) or centre(s) where module will be delivered**

Canterbuey

1. **Internationalisation**

The module introduces students to early cosmological models and the development of early astronomical and medical thinking. These theories are discussed in the context of current understanding of the cosmos, philosophical thinking and medical knowledge. The module covers extensively topics relating to foreign influences reflecting choices and the development of culture. The material and issues explored are particularly relevant to ideas relating to the role of ancient Greek intellectual heritage in the development of European thinking and culture.

**DIVISION USE ONLY**

**Revision record – all revisions must be recorded in the grid and full details of the change retained in the appropriate committee records.**

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| --- | --- | --- | --- | --- |
| Date approved | Major/minor revision | Start date of delivery of revised version | Section revised | Impacts PLOs (Q6&7 cover sheet) |
| 10/06/16 | Major | September 2016 | 5, 7-13 | No |
| 15/01/2021 | Major | 2021/22 | 1,8,10-11 | No |

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| Revised FSO Jan 2018 |