

## UNIVERSITY OF CENTRAL LANCASHIRE

### Programme Specification

This Programme Specification provides a concise summary of the main features of the programme and the learning outcomes that a typical student might reasonably be expected to achieve and demonstrate if he/she takes full advantage of the learning opportunities that are provided.

***Sources of information on the programme can be found in Section 17***

<b>1. Awarding Institution / Body</b>	University of Central Lancashire
<b>2. Teaching Institution and Location of Delivery</b>	University of Central Lancashire, Preston Campus
<b>3. University School/Centre</b>	Physical Sciences and Computing
<b>4. External Accreditation</b>	IOP (recognition)
<b>5. Title of Final Award</b>	Certificate in Cosmology
<b>6. Modes of Attendance offered</b>	Distance Learning
<b>7a) UCAS Code</b>	n/a
<b>7b) JACS code</b>	F510
<b>8. Relevant Subject Benchmarking Group(s)</b>	QAA: Subject Benchmark Statement for Physics, Astronomy and Astrophysics. Part A: Setting and Maintaining Academic Standards, February 2017. Part B: Assuring and Enhancing Academic Quality of the Quality Code, to be published. QAA: Subject Benchmark Statement for Physics, Astronomy and Astrophysics: Draft for Consultation, April 2016. QAA: Subject Benchmark Statement for Physics, Astronomy and Astrophysics, 2008.
<b>9. Other external influences</b>	National STEM Projects Institute of Physics
<b>10. Date of production/revision of this form</b>	April 2017
<b>11. Aims of the Programme</b>	
<ul style="list-style-type: none"> <li>• To provide an academically rigorous programme of Astronomy education suitable for astronomy enthusiasts with or without previous formal qualifications.</li> <li>• To provide an understanding of the physical laws as applied to the Universe.</li> <li>• To provide an introduction to basic concepts in Cosmology.</li> <li>• To develop elementary problem solving skills.</li> </ul>	

- To provide the opportunity to develop skills and techniques used in astronomy, which have wider applications (these include problem solving and preparation of scientific essays).
- To enhance the student's key skills (communication, numerical skills, IT, time-management).

<b>12. Learning Outcomes, Teaching, Learning and Assessment Methods</b>
<b>A. Knowledge and Understanding</b>
A1. Describe and explain physical laws and concepts as applied to the Universe. A2. Describe and explain basic structures of the Universe and the processes that take place within it.
<b>Teaching and Learning Methods</b>
Course Notes with worked examples linked to recommended textbook, self-test questions and solutions. Classroom tutorials and discussions via Elearn. Feedback to students on assessed work, together with model answers to assessed questions.
<b>Assessment methods</b>
Continuous assessment via courseworks including: Questions Sheets with both mathematical and conceptual problems, and researched essay.
<b>B. Subject-specific skills</b>
B1. Analyse and describe cosmological results B2. Solve elementary problems in cosmology B3. Construct and write scientific reports.
<b>Teaching and Learning Methods</b>
Tutorials and online classrooms on solving simple problems in cosmology Tutorials and online classrooms on and scientific writing.
<b>Assessment methods</b>
Question sheet with mix of problems and conceptual questions. Write a researched essay
<b>C. Thinking Skills</b>
C1. Draw conclusions from results and information sources. C2. Solve elementary problems. C3. plan and implement a brief investigation
<b>Teaching and Learning Methods</b>
Worked example in the notes, Self-test exercises.
<b>Assessment methods</b>
Assessed questions with balance of quantitative and descriptive questions. Scientific essay and essays to apply and develop concepts and synthesise different strands of a problem.
<b>D. Other skills relevant to employability and personal development</b>
D1. Use written communication (eg scientific reports, essays) D2. Use numerical and IT skills and electronic communication via e-mail and internet. D3. Plan and manage own time to achieve specific objectives.
<b>Teaching and Learning Methods</b>
Effective communication via the written word and electronic media, such as discussion boards. Use of structured documents. Self-test questions. Manage personal study time to meet course deadlines. Use IT to access course materials, produce electronic reports, etc.
<b>Assessment methods</b>
Essay, Mathematical/numerical problems in assessed question sheets

13. Programme Structures				14. Awards and Credits
Level	Module Code	Module Title	Credit rating	
Level 4	AA1053	Introduction to Cosmology	20	<b>University Certificate in Cosmology</b> Requires 20 credits at Level 4: AA1053.
<b>15. Personal Development Planning</b>				
<p>It is particularly important that the PDP offered by our courses is optional and flexible. Currently the following opportunities for PDP exist:</p> <ul style="list-style-type: none"> <li>• The admissions process includes interaction between Course Leader and applicant, advising on suitability of the course, given a student's aspirations for short or long-term study.</li> <li>• The induction process, using Handbook and Elearn links, provides opportunities for students to use the University's Skills and PDP resources.</li> <li>• The Distance Learning courses provide a structured environment for independent learning and time management, to pace study and meet coursework deadlines.</li> <li>• Self-test exercises encourage students to assess their academic progress within a module.</li> </ul>				
<b>16. Admissions criteria</b>				
<p>Programme Specifications include minimum entry requirements, including academic qualifications, together with appropriate experience and skills required for entry to study. These criteria may be expressed as a range rather than a specific grade. Amendments to entry requirements may have been made after these documents were published and you should consult the University's website for the most up to date information.</p> <p>Students will be informed of their personal minimum entry criteria in their offer letter.</p>				
<p>To study the Certificate in Cosmology students are normally required to have GCSE grade C in Mathematics and English or equivalent high school qualifications.</p>				
<b>17. Key sources of information about the programme</b>				
<p>Student Handbook Astronomy Module Catalogue uclan website <a href="http://www.StudyAstronomy.com">www.StudyAstronomy.com</a></p>				
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## 18. Curriculum Skills Map

Level	Module Code	Module Title	Core (C) or Option (O)	Programme Learning Outcomes																	
				Knowledge and understanding				Subject-specific Skills				Thinking Skills				Other skills relevant to employability and personal development					
				A1	A2			B1	B2	B3			C1	C2	C3		D1	D2	D3		
LEVEL 4	AA1053	Introduction to Cosmology	C	√	√			√	√	√			√	√	√		√	√	√		

**Note:** Mapping to other external frameworks, e.g. professional/statutory bodies, will be included within Student Course Handbooks

### 19. LEARNING OUTCOMES FOR EXIT AWARDS:

No exit awards are available for Certificate awards.