

## 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 Sun, Earth and Climate
<b>6. Modes of Attendance offered</b>	Distance Learning
<b>7a) UCAS Code</b>	n/a
<b>7b) JACS Code</b>	F530
<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 suitable for astronomy enthusiasts with or without previous formal qualifications.</li> <li>• To provide an understanding of physical laws and concepts as applied to the Sun-Earth system and the Earth's climate.</li> <li>• To provide an introduction to aspects of observational solar astronomy.</li> <li>• To develop elementary problem solving skills.</li> </ul>	

- To provide the opportunity to develop skills and techniques used in solar astronomy and solar-terrestrial physics, which have wider applications (these include data analysis, preparation of scientific reports).
- 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 involved in the study of solar effects impinging on the Earth. A2. Describe and explain the basic structures of the Sun and Earth and the associated solar-terrestrial phenomena. A3. Explain and implement a selection of techniques of observational solar astronomy and solar-terrestrial geophysics.
<b>Teaching and Learning Methods</b>
Course Notes with worked examples, 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, experimental report.
<b>B. Subject-specific skills</b>
B1. Design and implement safe solar observations. B2. Analyse and process observational results. B3. Construct and write scientific report.
<b>Teaching and Learning Methods</b>
Tutorials and online classrooms on use of appropriate astronomical software and safe observing Tutorials and online classrooms on simple data processing and analysis Carry out own safe solar observations.
<b>Assessment methods</b>
Assessed experimental report.
<b>C. Thinking Skills</b>
C1. Analyse information C2. Draw conclusions from observational results & information sources. C3. Solve elementary problems. C4. plan and implement a brief investigation
<b>Teaching and Learning Methods</b>
Exercises to do at home. Worked examples in notes, self-test questions of simple problem-solving.
<b>Assessment methods</b>
Assessed questions with balance of quantitative and descriptive questions. Scientific report 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>
Experimental report, Mathematical/numerical problems in assessed question sheets.

13. Programme Structures				14. Awards and Credits
Level	Module Code	Module Title	Credit rating	
Level 4	AA1058	Sun, Earth and Climate	20	<b>University Certificate in Sun, Earth and Climate</b> Requires 20 credits at Level 4: AA1058.
<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>				
(Advanced standing is not available for Certificate awards.)				
<i>*Correct as at date of approval. For latest information, please consult the University's website.</i>				
To study the Certificate in Sun Earth and Climate students are normally required to have GCSE grade C in Mathematics and English or equivalent high school qualification.				
<b>17. Key sources of information about the programme</b>				
Student Handbook Astronomy Module Catalogue uclan website www.StudyAstronomy.com				
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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	A3		B1	B2	B3			C1	C2	C3	C4	D1	D2	D3			
LEVEL 4	AA1058	Sun, Earth and Climate	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.**