# Understanding weather



What you will study Entry Regulations If you have a disability Study materials Teaching and assessment Future availability Students also studied How to register Student reviews Distance learning This course provides an introduction to weather patterns and events around the world, explaining the main drivers that determine the weather on a seasonal and daily basis. You'll explore how the professional weather forecasts for your area have been made and how reliable they are likely to be. Understanding the weather is one of a series of short, five month 10-credit courses introducing fascinating topics inscience.

You can try out an area of study before you commit yourself to a longer course, or top up your knowledge and skills between longer courses. Register for the course Choose country to update fee: StartEndFeeRegister 06 Apr 2013 See description Choose country above April 2013 is the final start date for this course. For more information, see Future availability. What you will study The weather arises from physical processes within the atmosphere as it responds to the rotation of the Earth and the heating effect of the Sun.

In this course you will discover how these processes determine the weather, how they vary depending on location and time of the year and the extent to which they can be forecast. You will also consider some of the ways in which typical variations in the weather and extreme weather events affect a wide range of human activities. Scientific concepts relating to temperature, humidity, air pressure, air density, clouds, precipitation and wind will be explained and you will see how many factors operate together in the atmosphere to produce various types of weather system.

This in turn will give you a better understanding of the information conveyed by weather maps. You will also learn about the ways in which meteorological data, including surface and upper-air measurements as well as satellite information, are collected and fed into the computer models that underlie weather forecasting. This will enable you to understand how the professional weather forecasts for your area have been made and how reliable they are likely to be. You will be able to apply this knowledge in making your own short-term predictions of your local weather.

There will be plenty of opportunity to consolidate your understanding of the scientific concepts by investigating different weather systems in a variety of climatic zones across the world. By the end of the course you will have developed a range of study skills associated with retrieving and interpreting information in the form of tables, charts, maps and graphs. You will be required to undertake some small projects in which you will develop your ability to observe your local weather in a systematic way and to interpret forecasts.

The course is based on a specially written Open University (OU) study book, together with a website with online activities using images, videos and other material and links to particular weather stations. The study book will provide questions and activities to help you to test your understanding, and that you can use for self-assessment as you progress through the course. The course is produced in partnership with the Royal Meteorological Society. Entry

The course is designed for people who are coming new to science and to meteorology, and all you really need is an interest in how the weather works and themotivationto find out more about the science underlying

meteorological phenomena and forecasting. You must be prepared to study some physical science and to learn how to interpret satellite images, maps, weather charts and graphs. You will need to access various types of forecast through the internet. You must also be willing to make some observations of the weather in your own locality and to keep a record of what you see.

Mathematically, you need to be able to add, subtract, multiply and divide, and although it would be useful to have a little basic knowledge of general science this is not essential. The structured teaching will take you to a level at which you will be able to understand important aspects of the science of the atmosphere which give rise to our weather. You should be able to read and understand written English of a style and complexity characteristic of a professional magazine or quality newspaper, and you should be able to communicate your thoughts clearly and comprehensibly in a written format.

If you have any doubt about the suitability of the course, please contact our Student Registration & Enquiry Service. Regulations As a student of The Open University, you should be aware of the content of the Module Regulations and the Student Regulations which are available on our Essential documents website. If you have a disability A proportion of the course is delivered online via the website, so you will have to spend a considerable amount of time using a personal computer and the internet. You must be able to download material from a website and download information from local weather stations via the internet.

Written transcripts of the audio-visual material are available. You must also be able to undertake simple observations of the weather in your locality of a period of several consecutive days. The course relies heavily on coloured

images, complicated maps and charts, and direct observations of the sky. One of the aims of the course is that students should develop an ability to interpret cloudscapes, weather maps, satellite images and their own observations. No textual descriptions of diagrams will be available and the use of a sighted assistant to interpret the images or describe the sky would conflict with the course learning outcomes.

The assessment will only require students to demonstrate that the majority of course learning outcomes have been achieved. You should consider if you will find achieving these learning outcomes challenging and contact the Student Registration & Enquiry Service for advice before registering for this course. You will be required to draw diagrams or to annotate diagrams that you download, and then to use either a scanner or a digital camera to produce electronic versions of these diagrams for inclusion in your assessment. Alternatively, creating diagrams electronically will be acceptable.

Adobe Portable Document Format (PDF) versions of printed material are available. Some Adobe PDF components may not be available or fully accessible using a screen reader and scientific or diagrammatic materials may be particularly difficult to read in this way. Other alternative formats of the study materials may be available in the future. Our Services for disabled students website has the latest information about availability. If you have particular study requirements please tell us as soon as possible, as some of our support services may take several weeks to arrange.

Visit our Services for disabled students website for more information, including: help to determine your study requirements and how to request the

support that you need Disabled Students' Allowances (DSAs) using a computer for OU study equipment and other support services that we offer examination arrangements how to contact us for advice and support both before you register and while you are studying. Study materials What's included OU study book, online activities using images, videos and other material, study guide, maths skills ebook. You will need

Basic scientific calculator. You will be required to draw diagrams or to annotate by hand diagrams that you download, and then to use either a scanner or a digital camera to produce files of these diagrams for inclusion in your assessment. Computing requirements You will need a computer with internet access to study this course which includes online activities. You can only access these using a web browser with Flash and Java. If you have purchased a new desktop orlaptop computersince 2006 you should have no problems completing the online activities.

If you've got a netbook, tablet or other mobile computing device check our Technical requirements section. If you use an Apple Mac you will need OS X 10. 5 or later. You can also visit the Technical requirements section for further computing information including the details of the support we provide. Teaching and assessment Study support You can contact a team of expert study advisers through an online discussion forum, and they will be able to help you withacademicquestions to do with the course and the assessment. There will also be an online discussion forum that you can use to get in touch with other students.

Contact our Student Registration & Enquiry Service if you want to know more about study with The Open University before you register. Assessment The

assessment details for this course can be found in the facts box above. You must use the online system to submit your end-of-module assessment (EMA). You will have to submit the single piece of written work for assessment after 21 weeks. There will be no other opportunity to complete the course. Future availability The details given here are for the final course start in April 2013 when it will be available for the last time. Students also studied

Students who studied this course also studied at some time: Volcanoes, earthquakes and tsunamis (S186) Exploring science (S104) Maths for science (S151) The frozen planet (S175) Elements of forensic science (S187) How to register To register a place on this course return to the top of the page and use the Click to register button. Student Reviews " Firstly I took this course to gain an extra qualification and credits for University, but also because of my keen ... " Read more " This was an excellent course which included a good mix of theory and practical activities. It was really enjoyable and ... " Read more