CAREERS IN WEATHER AND CLIMATE

Engage
Enthuse
Educate
Empower
WHAT IS A CAREER IN METEOROLOGY?

Meteorology includes the study of weather, climate and climate change. By studying meteorology, you can discover how our weather and climate work.

Weather has an impact on many things including ecosystems, health, travel, energy and food production. There are news stories about weather events almost every day - floods, droughts, storms, hurricanes, tornadoes, and melting ice. The weather affects all of us, individually, as a community and through our career and leisure activities.

The changing climate will have an ever-increasing impact on our lives through changes to our weather and weather worldwide. As almost every profession adapts to a differing environment, understanding the climate system is becoming fundamental to an increasing number of organisations.

Underpinning our understanding of all of this is meteorology - the study of weather and climate.

WHAT QUALIFICATIONS DO YOU NEED?

Most meteorologists have a strong background in physics and maths, preferably to a degree level. Degrees involving a significant proportion of meteorology are offered at BSc or MSc level by several UK universities. Many also offer PhD opportunities. Some jobs are also suitable for people with qualifications in geography, computing, environmental science and related subjects.

There is also an ever-increasing variety of jobs related to climate change adaptation and prevention available to those with a wide range of backgrounds and qualifications.

The Royal Meteorological Society provides ongoing support to all its members from students through to Fellows (FRMetS). The Society awards two professional accreditations to recognise excellence in people and in organisations and their continuing professional development – Registered Meteorologist (RMet) and Chartered Meteorologist (CMet).

Professional forecaster training is provided by the Royal Navy’s Flagship Officer Sea Training group and the Met Office College. Vocational qualifications in observing, forecasting and broadcasting are available for those already employed in meteorological professions.

Find lots more about courses and employers on our website metlink.org

UNIVERSITY DEGREE COURSES

To become a leading research or applied scientist, a good degree from a university is essential.

A degree in meteorology, physics or maths could help you start your career in weather and climate.

Many people enter the profession with degrees in associated subjects, including computing, environmental studies, physical geography and electronics.

Find a list of meteorology related courses on rmets.org/courses

CAREERS IN CLIMATE CHANGE

Explore some of the many careers in climate change that you can do with qualifications in STEM subjects

Find lots more about courses and employers on our website metlink.org

/royalmetsoc
Kirsty McCabe, FRMetS
Weather Producer and Presenter at Sky News

“Having now arrived at two separate Antarctic stations there’s no easy way to describe how exciting it feels…”

What does your job involve?
Producing and presenting live and recorded UK and international weather broadcasts on TV, radio and digital platforms.

How did you get to where you are in terms of qualifications and experience?
I have a BSc Hons in Geophysics from the University of Edinburgh. I spent a year at the Met Office College doing the FFTP, with on-the-job training at the BBC Weather Centre and RAF bases. The presenting side is something that comes with practice; live television is not for the faint-hearted!

What has been your best day at work so far?
I’ve had lots of brilliant days and have been lucky enough to have presented the weather from different locations all over the UK. It’s almost magical watching the sun rise and seeing places come to life. I’ve even helped a few celebrities to do the weather which is always fun, Kylie Minogue was so lovely.

Your best advice for someone wanting to do something similar:
Brace yourself for unsociable hours. Most weather presenting jobs involve early starts or night shifts, and you’ll probably work weekends and Christmas.

Jack Farr
Wintering Antarctic Atmospheric Scientist, British Antarctic Survey

“It’s almost magical watching the sun rise and seeing places come to life.”

What does your job involve?
My job involves observing the atmosphere day to day, recording what’s happening, and maintaining the automatic meteorological and ozone instruments on station.

How did you get to where you are in terms of qualifications and experience?
For my first time working in the Antarctic, I had just finished my undergraduate degree in Meteorology and Oceanography and had only a little experience with fieldwork and forecasting. Now for my second time down, I have my added Antarctic experience which has allowed me to fill in for the meteorologist at another station that needed filling in at the last minute.

Why is your job important?
Antarctica is an extremely sparsely observed part of the world. What happens here can affect people around the globe, most famously of the world. What happens here can affect people around the globe, most famously the discovery and continued observation of the hole in the Ozone layer above Antarctica.

Why is your job important?
It’s my job to translate meteorological jargon into an interesting and engaging weather story, so that people know what the weather will be like, how it will affect them, and are aware of any risks from adverse conditions.

What has been your best day at work so far?
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Your best advice for someone wanting to do something similar:
Brace yourself for unsociable hours. Most weather presenting jobs involve very early starts or night shifts, and you’ll probably work weekends and Christmas.

Ray Jefferson, RMet
Marine Router, Fleetweather

“My best days at work are when I can make the people around me realise the importance of a weather forecast”

What does your job involve?
Analysing global weather forecasts and atmospheric drivers in order to create my own weather forecast and as a result get excited about the people around me realise the importance of a weather forecast and as a result get excited about the impact of weather on our business, as it can be a real tangible impact. Increasingly this conversation is moving into climate science as well which is really exciting for me!

What has been your best day at work so far?
My best days at work are when I can make the people around me realise the importance of a weather forecast and as a result get excited about the impact of weather on our business, as it can be a real tangible impact. Increasingly this conversation is moving into climate science as well which is really exciting for me!

Your best advice for someone wanting to do something similar:
Don’t specialise too soon and get as much diverse experience as you can.
**Joanna Chambers**, RMet

**Senior Forecaster**, Government of Jersey

**What does your job involve?**

Monitoring the weather and providing essential weather predictions based on the most up to date information.

**How did you get to where you are in terms of qualifications and experience?**

I have worked at Jersey Met for 20 years. I started as a Meteorological Observer in 2001 and completed my degree in environmental science and maths and an NVQ in Observing. I was promoted to trainee forecaster in October 2006 and travelled to Exeter to complete my forecaster training at the Met Office College. I completed my forecasting NVQ in 2012 and worked my way up the ranks to become a Senior Forecaster in 2015.

**Why is your job important?**

We provide essential weather information that allows individuals and businesses to plan their activities and workload and allows aviation and marine to operate safely.

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**Dave Sproson**

Atmospheric Data Scientist, Facility for Airborne Atmospheric Measurements (via NCAS/University of Leeds)

**What does your job involve?**

I gather meteorological and hydrological information from scientists across England to provide a national flood forecasting summary.

**How did you get to where you are in terms of qualifications and experience?**

I studied Geography, Maths and French at A-Level and have always loved learning about and exploring the world around me. I went on to study Geography (BSc Hons) at the University of Hull, learning about hydrology, atmospheric dynamics, maths, and practical weather forecasting. Throughout my university career, I looked for work experience to gain an understanding of a true working environment. Whilst travelling in Asia and Australia, I was lucky enough to secure work experience at a private weather company in Sydney which helped me land a meteorologist role in London on my return to the UK. I joined the Environment Agency (EA) in 2008 as a flood forecaster, and since then, I have had a vast role in Flood and Coastal Risk Management. I have also continued my learning journey, becoming a Chartered Scientist. Fellow of the Royal Meteorological Society and Member of the Chartered Institute of Water and Environmental Management (CIWEM).

**Why is your job important?**

The flood forecast information that we provide helps the government, emergency responders and the public prepare for and stay safe during a flood.

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**Hannah Mallinson**

Science Engagement Manager, Royal Meteorological Society (RMetS)

**What does your job involve?**

I provide scientific support in the development and delivery of Society projects (across events, publishing, informal education, partnerships, and comms), which promote the understanding of weather and climate science to a variety of audiences.

**How did you get to where you are in terms of qualifications and experience?**

At A-Level I studied Maths, Chemistry and Geography, before then studying BSc Geography at undergraduate level. With climate change and weather embedded in many modules, this confirmed my interest in meteorology and so I subsequently did a MSc in Applied Meteorology. After graduating, I worked as a Marine Weather Forecaster for a private company and this equipped me with a multitude of skills essential for my current role, including communicating complex information to a range of stakeholders with differing knowledge bases.

**Why is your job important?**

Weather and climate affect our everyday lives and through engaging and educating others about meteorology we empower individuals to make informed choices now and in the future. The measurements we make help scientists to better understand the atmosphere and our changing climate.

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**Joanne Coles**, FRMetS

National Flood Forecasting Duty Manager, Environment Agency

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I studied Geography, Maths and French at A-Level and have always loved learning about and exploring the world around me. I went on to study Geography (BSc Hons) at the University of Hull, learning about hydrology, atmospheric climate, and remote sensing. Next, I went to the University of Birmingham to study MSc Applied Meteorology and Climatology, which involved learning about physics, atmospheric dynamics, maths, and practical weather forecasting. Throughout my university career, I looked for work experience to gain an understanding of a true working environment. Whilst travelling in Asia and Australia, I was lucky enough to secure work experience at a private weather company in Sydney which helped me land a meteorologist role in London on my return to the UK. I joined the Environment Agency (EA) in 2008 as a flood forecaster, and since then, I have had a vast role in Flood and Coastal Risk Management. I have also continued my learning journey, becoming a Chartered Scientist. Fellow of the Royal Meteorological Society and Member of the Chartered Institute of Water and Environmental Management (CIWEM).

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**What has been your best day at work so far?**

The best thing is knowing that I play a part in helping people to stay safe.

**Your best advice for someone wanting to do something similar:**

Be curious, passionate, and enthusiastic. Don’t be afraid to ask questions, persevere and look for opportunities, you never know where they may lead.

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“Embrace new experiences as there is always something to learn and don’t be afraid to ask questions.”

― Hannah Mallinson, Science Engagement Manager, Royal Meteorological Society (RMetS)

“The best thing is knowing that I play a part in helping people to stay safe.”

― Joanne Coles, FRMetS National Flood Forecasting Duty Manager, Environment Agency

“Mentorship can be one of the most rewarding parts of the job.”

― Joanna Chambers, Senior Forecaster, Government of Jersey

“We talk to a huge range of people, and it is the most rewarding part of the job.”

― Joanna Chambers, Senior Forecaster, Government of Jersey

“A particularly good day recently was when we flew up and down Loch Linhie in the Scottish Highlands.”

― Dave Sproson, Atmospheric Data Scientist, Facility for Airborne Atmospheric Measurements (via NCAS/University of Leeds)