Programme Specification

MMet Meteorology and Climate with a Year in Oklahoma   **UCAS Code: F791**

For students entering Part 1 in September 2017   **UFMETCLIOKM**

This document sets out key information about your Programme and forms part of your Terms and Conditions with the University of Reading.

Awarding Institution	University of Reading
Teaching Institution	University of Reading
Length of Programme	4 years
Accreditation	The programme outlined here is approved by the Royal Meteorological Society as an appropriate academic training for meteorologists seeking the qualification *Chartered Meteorologist*

Programme information and content	
The programme aims to provide you with a thorough degree level education in environmental physical science with an emphasis on the physics of the Earth's atmosphere and oceans. It also aims to provide graduates with sufficient maths and physics to pursue a career outside of the specialist areas of meteorology and oceanography. In addition it gives you the opportunity to spend a year studying at one of the USA's premier Schools of Meteorology.	
Part 1:	Introduces you to the basic concepts and terminology of weather systems around the globe. Key concepts from physics will be applied specifically to the atmosphere and oceans to form the basis of a solid scientific study of the Earth's weather and climate. Important concepts in maths will be developed so that students are able to undertake a rigorous examination of the scientific principles that underpin the study of the weather and climate. Practical skills such as computer programming and laboratory/fieldwork experimental design, record keeping and data analysis will also be introduced.
Part 2:	Provides you with an opportunity to use the skills and concepts introduced in Part 1 in order to conduct a thorough scientific investigation of how the atmosphere and oceans evolve and develop on timescales from seconds to centuries. Further key mathematical concepts will be introduced and developed. The programming, laboratory and field work skills introduced in Part 1 will be put to use conducting experiments and analysing data both in the fluid dynamics laboratory and in our state-of-the-art atmospheric observatory.
Part 3:	Gives you the opportunity to experience studying abroad as an integral part of your degree. In this year you will travel to the School of Meteorology at the

	University of Oklahoma, USA. Here you will be taught by experts in their fields across a wide range of different weather and climate topics, with a chance to visit the US National Weather Center and National Severe Storms Laboratory.
Part 4:	Gives you the opportunity to focus on areas of atmospheric and ocean science that are of the most interest to you. In particular you will conduct an extensive research project, working closely with members of the Department's academic and research staff, on a topic of your choice, culminating in a written dissertation and presentation to your peers and members of staff. Optional modules cover a broad range of different topics in weather and climate science.

Module information

Each part comprises 120 credits, allocated across a range of compulsory and optional modules as shown below. Compulsory modules are listed.

Part 1 Modules:

Module	Name	Credits
MA1CA	Calculus	20
MA1LA	Linear Algebra	20
MT11C	Introduction to Meteorology	20
MT11D	Weather and Climate Fundamentals	20
MT12C	Skills for Environmental Science	20

Your remaining credits will be made up of optional modules from the School of Mathematical, Physical and Computational Sciences and modules from elsewhere in the University.

Part 2 Modules:

Module	Name	Credits	Level
MA2DE	Differential Equations	20	5
MT24A	Atmosphere and Ocean Dynamics	20	5
MT24B	Atmospheric Physics	20	5
MT24C	Numerical Methods for Environmental Science	10	5
MT25F	Atmospheric Analogues	10	5
MT26E	Surface Energy Exchange	10	5
MT2SWC	Statistics for Weather and Climate Science	10	5

Your remaining credits will be made up of optional modules from the School of Mathematical, Physical and Computational Sciences and modules from elsewhere in the University.

Students may also select 20 credits at level 4 in a foreign language offered by the Institutional Wide Language Programme (IWLP).

Modules during a placement year or study year (if applicable):

If you take a year-long placement or study abroad, Part 3 as described below may be subject to variation.

Part 3 Modules:

All modules in Part 3 are optional. All students must select four modules in each of two semesters. You will be briefed on choosing modules at Oklahoma prior to your departure. All modules should be from the School of Meteorology.

Part 4 Modules:

Module	Name	Credits
MT49E	Boundary Layer Meteorology	20
MT4XA	Part 4 Project	40
MT4XB	General Studies	10

Your remaining credits will be made up of optional modules from School of Mathematical, Physical and Computational Sciences.

Additional costs of the programme

During your programme of study you will incur some additional costs.

The main additional cost of this programme is the Year in Oklahoma and there are a number of costs involved in this year. The University of Oklahoma has a number of charges including accommodation, health cover, and student maintenance fees. These costs amount to about $5500 (US dollars) for the year. The cost of a US student visa is approximately £200. Students must pay for their own air-fares to travel to and from the USA (return fare approximately £700). These estimates do not include food or travel costs within the US.

The other additional cost for this programme is for an optional field trip prior to the start of Part 3. There are no compulsory textbook purchases for this programme. A range of resources to support your curriculum, including textbooks and electronic resources, are available through the library. Reading lists and module specific costs are listed on the individual module descriptions.

You will need an approved scientific calculator (approximate cost £12).

Costs are indicative and may vary according to optional modules chosen and are subject to inflation and other price fluctuations.

The estimates were calculated in 2016.

Optional modules:

The optional modules available can vary from year to year. An indicative list of the range of optional modules for your Programme is set out in the Further Programme Information. Details of optional modules for each part, including any Additional Costs associated with the optional modules, will be made available to you prior to the beginning of the Part in which they are to be taken and you will be given an opportunity to express interest in the optional modules that you would like to take. Entry to optional modules will be at the discretion of the University and subject to availability and may be subject to pre-requisites, such as completion of another module. Although the University tries to ensure you are able to take the optional modules in which you have expressed interest this cannot be guaranteed.

Placement opportunities

You may be provided with the opportunity to undertake a credit-bearing placement as part of your Programme. This will form all or part of an optional module. You will be required to find and secure a placement opportunity, with the support of the University.

Teaching and learning delivery:

You will be taught through seminars, lectures, tutorials and problems classes, laboratory and field work.

The contact hours for your Programme will be (on average) 360 hours for Part 1, 324 hours for Part 2 and 204 hours for Part 4, and will depend upon your module combination; however information about module contact hours can be located in the relevant module description. Contact hours at Oklahoma University in Part 3 is dependent on module choices.

Accreditation details

The programme is accepted by the Royal Meteorological Society as fulfilling the requirements for core content under the Society's Chartered Meteorologist Accreditation Scheme.

Assessment

The programme will be assessed through a combination of written examinations and coursework. However, some modules are assessed only by coursework, while others are assessed solely by examination. Details are given in the relevant module descriptions.

Progression

The University-wide rules relating to 'threshold performance' as follows

Part 1

(i) obtain an overall weighted average of 40% in 120 credits
(ii) obtain a mark of at least 30% in individual modules amounting to at least 100 credits taken in Part 1.

In order to progress from Part 1 to Part 2, a student must achieve a threshold performance; and

(iii) obtain at least 40% in the Meteorology modules averaged together at Part 1; and

(iv) obtain no less than 30% in MT11C, MT11D and MT12C.

The achievement of a threshold performance at Part 1 qualifies a student for a Certificate of Higher Education if they leave the University before completing the subsequent Part.

Part 2
To gain a threshold performance at Part 2, a student shall normally be required to:

(i) obtain a weighted average of 40% over 120 credits taken at Part 2; and
(ii) obtain marks of at least 40% in individual modules amounting to at least 80 credits; and
(iii) obtain marks of at least 30% in individual modules amounting to at least 120 credits, except that a mark below 30% may be condoned in no more than 20 credits of modules owned by the Department of Mathematics and Statistics.

In order to progress from Part 2 to Part 3, a student must achieve a threshold performance; and

(iv) obtain an overall weighted average of 50% over 120 credits taken at Part 2.

Students who fail to progress are permitted one re-sit examination in each module in which they obtain less than 50%.

For any module passed in a re-sit examination the maximum mark carried forward into the final degree classification will be the higher of
(a) the first attempt mark; and

(b) the lower of 40 and the mark achieved in the re-examination.

Failure to progress from 2nd to 3rd year at first attempt (i.e. prior to resits) means that the student will not be allowed to take the year in Oklahoma and must resit in Reading to move on to the 3rd year of the BSc programme.

Any costs incurred regarding the trip to Oklahoma will not be refunded.

The achievement of a threshold performance at Part 2 qualifies a student for a Diploma of Higher Education if they leave the University before completing the subsequent Part.

Part 3

Mark translation:

Main algorithm

The main translation algorithm assumes that there is equivalence between the lettered grades at OU and the degree classifications at UoR.

In other words an A at OU is a 1st class honours at UoR, a B is a 2:1, C a 2:2 and so on.

The percentage marks are then translated in a piecewise linear fashion between the marks required for the OU grades on either side of the boundary and the marks required for the corresponding UoR classifications.

Note that some modules can return marks of over 100% at OU. These are capped at 100% in the UoR scheme.

Grade only algorithm
Some modules at OU only return a grade. In this case the mid-way point of the UoR classification is return. So A=85%, B=65%, C=55% and so on. Note that in some instance a student will see a percentage mark at OU that has not been returned officially to UoR and in these cases we have to work on the grade alone. This is not very common.

Pass/fail modules
Very rarely some modules at OU only return as pass/fail to UoR. In this instance the mark awarded is simply the average UoR mark for all other modules, or 40% in the unlikely case that the average is below 40%.

To gain a threshold performance at Part 3, a student shall normally be required to:

(i) achieve an overall average of 40% over 120 credits taken in Part 3.

In order to progress from Part 3 to Part 4, a student shall normally be required to achieve a threshold performance.

The criteria for threshold performance are applied after taking due account of the differences between the Oklahoma and Reading marking schemes.

Students who fail to progress are permitted one re-sit examination in each module in which they obtain less than 40%.

For any module passed in a re-sit examination the maximum mark carried forward into the final degree classification will be the higher of;

(a) the first attempt mark; and

(b) the lower of 40 and the mark achieved in the re-examination.

Students who do not meet the requirements for progression to Part 4 should discuss their options with the programme director.

Classification

Integrated Masters' Degree
The University's honours classification scheme is based on the following:

Mark	Interpretation
70% - 100%	First class
60% - 69%	Upper Second class
50% - 59%	Lower Second class
40% - 49%	Third class
0%-39%	Fail

The weighting of the Parts/Years in the calculation of the degree classification is:

Integrated Masters Programmes (MEng, MMath, MChem etc)
Part 2: 20%

Part 3: 40%

Part 4: 40%

For further information about your Programme please refer to the Programme Handbook and the relevant module descriptions, which are available at http://www.reading.ac.uk/module/. The Programme Handbook and the relevant module descriptions do not form part of your Terms and Conditions with the University of Reading.

MMet Meteorology and Climate with a Year in Oklahoma for students entering Part 1 in session 2017/18
8 November 2016