

Syllabus

EART60071: Measuring and Predicting 2

Semester 1 Lecture: Thursdays 10:00-12:00

Semester 1 Practical: Thursdays 13:00-16:00

Core module for:

- MPEC
- MESPOM

Optional for:

- N / A

15 credits

Instructor

Prof. Paul Connolly

Centre for Atmospheric Science

Dept. of Earth, and Environmental Sciences

Simon Building, Room 3.08 (dial 63921 to be admitted)

paul.connolly@manchester.ac.uk

<http://www.manchester.ac.uk/research/paul.connolly/>

Phone: +44 (0)161 306 3921

Useful texts

See references at the back.

Assessment and Feedback

Assessment	Weighting
Online test (16 th January – 27 th January)	100%

See Appendix B for more detail. Feedback is available each week by speaking to the instructors in class. For the online assessments; however, if you feel you would like further clarification, please ask. That's why we're here!

Requirements

For 2022-2023 academic year this course will be delivered face-to-face. We would like to give you a first class experience of using advanced environmental models and this will involve hands on experience within the practical sessions.

In order to practice at home you can use a computer running either a terminal or command window OR a google chrome web browser and make sure you install

the Secure Shell App extension for this browser available from this link: <https://chrome.google.com/webstore/detail/secure-shell-app/pnhechapfaindjhompbnflcldahhhl=en>. This should work on most computers, including Chromebooks.

Assessment on Blackboard

There is a webpage accompanying this module: http://personalpages.manchester.ac.uk/staff/paul.connolly/teaching/eart60071/eart60071_course.php?ver=2.0, where you can see the material for each week. The assessment links will direct you straight to the Blackboard page for assessments, so you will need to input your University username and password (see Appendix B).

Attendance

Attendance should be considered to be compulsory.

Feedback

You will get feedback on your work in several ways:

- By talking to us in class about your work.
- By completing the practical sessions and discussing your results during the practicals and other sessions.
- I will also spend time in class covering general aspects of the assessments.

Appendix A

Units and conversions

A.1 Prefixes

Here are some prefixes that are often used when writing scientific numbers.

10	deka (da)	10^{-1}	deci (d)
10^2	hecta (h)	10^{-2}	centi (c)
10^3	kilo (k)	10^{-3}	milli (m)
10^6	mega (M)	10^{-6}	micro (μ)
10^9	giga (G)	10^{-9}	nano (n)
10^{12}	tera (T)	10^{-12}	pico (p)
10^{15}	peta (P)	10^{-15}	femto (f)
10^{18}	exa (E)	10^{-18}	atto (a)

Also note the unit Å (or Angstrom), often used to describe sizes of atoms, which is equal to 1×10^{-10} m.

Appendix B

Assessment for this course

Assessment is as follows:

- **Summative Blackboard assessment:** testing knowledge of the models used. This will count for 100% of your grade for the course.
 - Questions asked will cover the material from all prior weeks.
 - The availability dates for this assessment on Blackboard are between: **Monday 16th January and Friday 27th January.**

So there is one real deadline, which is between:
Monday 16th January and Friday 27th January.

References

- Hoffman, J. D., 1992: “*Numerical methods for engineers and scientists*”.
“McGraw-Hill”.
- Latham, J., 1990: Control of global warming? **347**, 339–340.