MA262-15 Scientific Communication

26/27

Department
Warwick Mathematics Institute
Level
Undergraduate Level 2
Module leader
Andrew Brendon-Penn
Credit value
15
Module duration
45 weeks
Assessment
Multiple
Study location
University of Warwick main campus, Coventry

Description

Introductory description

It is a multifaceted module covering various aspects of scientific communication from presenting a research paper to presenting yourself to the job market.

Module aims

Complete learning of Python. Learn LaTeX. Review the first year material at the beginning of the second year. Prepare the students for the job market. Provide an opportunity for students to learn Mathematics directly from books and other sources and to develop research skills. Develop written and oral exposition skills.

Outline syllabus

This is an indicative module outline only to give an indication of the sort of topics that may be covered. Actual sessions held may differ.

- Latex, Python mini-course on Moodle
- Year 1 Refresher
- Employability study
- Mathematical Essay

Learning outcomes

By the end of the module, students should be able to:

- Learn how to write Mathematics
- Practice various presentation skills
- Improve the programming skills in Python
- Develop research skills
- Learn essential transferrable skills improving job market competitiveness

Research element

The students will research their own topics for the essay, and look through many sources to come up with their own story but they will not be doing any original research.

Subject specific skills

It is a multi-component module, where the students will learn several research and communication tools. It will include further mastering of Python as well as getting familiar with LaTeX. For the essay itself the students have the opportunity to choose their own topic, and then to learn some in-depth mathematics directly from books and other sources. They will develop written and oral exposition skills and learn how to write mathematics well. They will develop research skills, including planning, use of library and the internet.

Transferable skills

- independent study
- research skills
- formal writing & typesetting
- essay and curriculum vitae writing
- presentation skills
- experience of working under a supervisor
- Python and LaTeX (which could be replaced if other tools become standard

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Study

Study time

Type	Required	Optional
Lectures	13 sessions of 1 hour (9%)	1 session of
Seminars	(0%)	1 session of
Total	150 hours	

Type	Required	Optional
Tutorials	1 session of (0%)	
Project supervision	4 sessions of (0%)	
Supervised practical classes	(0%)	3 sessions of
Private study	137 hours (91%)	
Total	150 hours	

Private study description

Complete the refresher
Prepare and complete quizzes
Research and write essay
Prepare for presentation

Costs

No further costs have been identified for this module.

Assessment

You do not need to pass all assessment components to pass the module.

Assessment group A3

	Weighting	Study time	Eligible for self-certification
Essay Word limit: 12 pages	50%		No
Essay Presentation Essay presentation	20%		No
Python Mini-Course Assessment Moodle based mini-course assessment	15%		No
Year 1 Refresher Homework Long homework to refresh the first year foundations, analysis, linear and abstract algebra and mathematical modelling	10%		No
Essay Plan and Draft Student submits an essay plan in Term 1 and an essay draft in Term 2.	5%		No

Assessment group R3

	Weighting	Study time	Eligible for self-certification
Essay	100%		No
Word limit: 12 pages			

Feedback on assessment

Formative feedback available from the personal tutor throughout year. Assessment of earlier components is available during the year.

Availability

Courses

This module is Core for:

- Year 2 of UMAA-G105 Undergraduate Master of Mathematics (with Intercalated Year)
- Year 2 of UMAA-G100 Undergraduate Mathematics (BSc)
- UMAA-G103 Undergraduate Mathematics (MMath)
    - Year 2 of G100 Mathematics
    - Year 2 of G103 Mathematics (MMath)
- Year 2 of UMAA-G1NC Undergraduate Mathematics and Business Studies
- Year 2 of UMAA-G1N2 Undergraduate Mathematics and Business Studies (with Intercalated Year)
- Year 2 of UMAA-G101 Undergraduate Mathematics with Intercalated Year

This module is Option list A for:

- Year 2 of UMAA-GL11 Undergraduate Mathematics and Economics
- Year 2 of UECA-GL12 Undergraduate Mathematics and Economics (with Intercalated Year)