

FP023-30 English for Academic Purposes for Maths and Computer Science

23/24

Department

Warwick Foundation Studies

Level

Foundation

Module leader

Sanchia Rodrigues

Credit value

30

Module duration

20 weeks

Assessment

50% coursework, 50% exam

Study location

University of Warwick main campus, Coventry

Description

Introductory description

This module is designed to enhance student academic performance within higher education.

[Module web page](#)

Module aims

The core purpose of this module is to enhance students' achievement in their academic subjects. We aim to:

- introduce students to a variety of techniques for analysing texts appropriately within mathematics, statistics and computer science.
- develop students' ability to organise their writing, signal their main points, and cite the sources used to support their main arguments within mathematics, statistics and computer science.
- develop students' ability to stage effective, engaging presentations, skilfully express their

opinions, respond to others in group seminar discussions, in addition to lead such seminars within mathematics, statistics and computer science.

- make students aware of how to listen to lectures strategically to identify key points, take notes and review learning within mathematics, statistics and computer science.

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.

ACADEMIC WRITING

- + Writing in a formal and impersonal academic style
- + Interpreting assignment titles and using grading guidelines
- + Organising subject-specific written genres (essay or report)
- + Writing introductions (including writing a thesis statement)
- + Writing a literature review
- + Making observations and writing topic sentences
- + Citing sources (including integral and non-integral citations)
- + Paraphrasing
- + Summarising
- + Synthesising ideas
- + Describing methodology
- + Describing results
- + Discussion: analysing reasons (expressing cause and effect)
- + Discussion: evaluating ideas / data / results
- + Discussion: expressing caution (hedging)
- + Drawing conclusions
- + Conceding limitations and making recommendations
- + Writing a reference list
- + Classifying information
- + Describing problems and solutions

ACADEMIC READING

- + Reading textbooks
- + Reading research reports
- + Evaluating reading materials
- + Surveying a text and formulating focus questions
- + Using grammatical cohesive markers to understand a text
- + Using lexical cohesive markers to understand the text
- + Note-making: Concept mapping
- + Note making: Using logical connectors to make linear notes
- + Recounting a text
- + Making general observations from multiple sources

ACADEMIC PRESENTATIONS

- + Structuring a presentation
- + Formulating a thesis for a presentation

- + Using attention-getters
- + Supporting your main points with explanation, evidence and examples
- + Referring to sources and including a reference list
- + Using basic techniques: pausing and pacing
- + Using emphasis
- + Using repetition
- + Creating PowerPoint slides
- + Asking and answering questions

SEMINAR DISCUSSIONS

- + Identifying the qualities a good seminar participant
- + Interrupting appropriately
- + Making arguments
- + Making refutations and rebuttals
- + Considering different perspectives
- + Clarifying and confirming understanding
- + Referring to what other speakers have said
- + Behaviours that negatively affect seminars: monopolisation and alpha pairs
- + Using written sources

ACADEMIC LISTENING

- + Consider factors influencing the ability to understand lectures
- + Identifying and using the overall organization of lectures
- + Using the main features of an introduction to increase comprehension
- + Note-taking (using abbreviations and symbols)
- + Note-taking (the Cornell system)
- + Summarising notes
- + Recognising main ideas
- + Following argument
- + Dealing with digressions
- + Using the main features of conclusions to increase comprehension

Learning outcomes

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

- Analyse, interpret and evaluate spoken and written discourse for the study of mathematics, statistics and computer science
- Synthesise relevant information/data to produce discipline-specific written and spoken genres, incorporating own ideas
- Communicate effectively in written and spoken genres, employing academic conventions relevant to the disciplines

Indicative reading list

Abebe, R. et al. (2021) 'Narratives and Counternarratives on Data Sharing in Africa', in Proceedings of the 2021 ACM Conference on Fairness, Accountability, and Transparency. ACM, pp. 329–341. Available at: <https://doi.org/10.1145/3442188.3445897>.

Akter, S. et al. (2021) 'Algorithmic bias in data-driven innovation in the age of AI', *International Journal of Information Management*, 60. Available at: <https://doi.org/10.1016/j.ijinfomgt.2021.102387>.

Birks, K.S. (2012) 'No Ethical Issues in Economics?', *SSRN Electronic Journal* [Preprint]. Available at: <https://doi.org/10.2139/ssrn.2029976>.

Broome, J. (2008) 'Why economics needs ethical theory', in K. Basu and R. Kanbur (eds). *Arguments for a Better World: Essays in Honor of Amartya Sen: Volume I: Ethics, Welfare, and Measurement and Volume II: Society, Institutions, and Development*. Oxford University Press. Available at: <https://0-philpapers-org.pugwash.lib.warwick.ac.uk/rec/BROWEN>.

Chiodo, M. and Bursill-Hall, P. (no date) 'Four Levels of Ethical Engagement.' Available at: https://ethics.maths.cam.ac.uk/assets/dp/18_1.pdf.

Garzcarek, Ursula (no date) 'Approaching Ethical Guidelines for Data Scientists', pp. 151–169. Available at: https://link.springer.com/chapter/10.1007/978-3-030-25147-5_10.

Karst, N. and Slegers, R. (2019) 'Cryptography in Context: Co-teaching Ethics and Mathematics', *PRIMUS*, 29(9), pp. 1039–1059. Available at: <https://doi.org/10.1080/10511970.2018.1488316>.

Müller, D., Chiodo, M. and Franklin, J. (2022) 'A Hippocratic Oath for mathematicians? Mapping the landscape of ethics in mathematics', *Science and Engineering Ethics*, 28(5). Available at: <https://doi.org/10.48550/arXiv.2112.07025>.

Stephan, M. et al. (2021) 'Ethical mathematics awareness in students' big data decision making', in *Exploring new ways to connect: Proceedings of the Eleventh International Mathematics Education and Society Conference*. Hamburg, Germany: Tredition, pp. 977–985. Available at: <https://doi.org/10.5281/zenodo.5416678>.

Vardeman, S.B. and Morris, M.D. (2003) 'Statistics and Ethics', *The American Statistician*, 57(1), pp. 21–26. Available at: <https://doi.org/10.1198/0003130031072>.

Yalcintas, A. and Kösel, E.S. (no date) 'in: What If Economists and Their Subjects Are Not Rational?', pp. 103–115. Available at: https://link.springer.com/chapter/10.1007/978-3-030-52673-3_7

Interdisciplinary

Students will have opportunities to draw on knowledge and skills acquired within the different modules on their pathway.

International

The international nature of the student cohort allows for the teaching and learning to be approached from and inclusive of a range of international perspectives.

Subject specific skills

- + Strategies to read discipline specific genres effectively, appropriate to Maths and Economics.
- + Strategies to listen to discipline specific genres effectively, appropriate to Maths and Economics.
- + Techniques to produce coherent discipline-specific written genres, appropriate to Maths and Economics.
- + Techniques to deliver an effective and engaging presentation, appropriate to Maths and Economics.

+ Strategies to participate effectively in and lead a seminar discussion, appropriate to Maths and Economics.

Transferable skills

- + Study skills
 - + Academic integrity skills
 - + Independent study skills
 - + Information technology skills: library skills, research skills
 - + Research methodology
 - + Critical and innovative thinking
 - + Report writing skills
 - + Group work skills
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Study

Study time

Type	Required
Seminars	100 sessions of 1 hour (33%)
Tutorials	3 sessions of 30 minutes (0%)
Private study	138 hours 30 minutes (46%)
Assessment	60 hours (20%)
Total	300 hours

Private study description

Background reading prior to classes, research for written assignments, completion of assessments and examination preparation

Costs

No further costs have been identified for this module.

Assessment

You must pass all assessment components to pass the module.

Assessment group C

	Weighting	Study time	Eligible for self-certification
Assessment component			
Student-led seminar	25%	15 hours	No
Individual student presentations leading to a group discussion on a topic appropriate to the discipline.			

Reassessment component is the same

Assessment component

Essay	25%	15 hours	Yes (extension)
Students write an essay on a discipline-specific topic.			

Reassessment component is the same

Assessment component

Listening Assessments	25%	15 hours	No
Students complete two assessments.			

Reassessment component is the same

Assessment component

Reading Assessments	25%	15 hours	No
Students complete two assessments.			

Reassessment component is the same

Feedback on assessment

Written feedback

[Past exam papers for FP023](#)

Availability

Courses

This module is Core for:

- FIOE Warwick International Foundation Programme
 - Year 1 of FP18 Warwick International Foundation Programme - Computer Science
 - Year 1 of FP16 Warwick International Foundation Programme - Mathematics and Statistics

This module is Core optional for:

- Year 1 of FIOE Warwick International Foundation Programme