

FP099-30 Academic Research and Communication Skills for STEM

26/27

Department

Warwick Global Academy

Level

Foundation

Module leader

Cleo Tilley

Credit value

30

Module duration

23 weeks

Assessment

100% coursework

Study location

University of Warwick main campus, Coventry

Description

Introductory description

This module develops the academic language, literacy, and research skills needed for success in UK higher education. Students will practise reading, writing, listening, and speaking in academic contexts, learning how to structure arguments, present ideas clearly, and communicate effectively in written and spoken formats. The module also introduces critical academic practices such as evaluating sources, engaging in inquiry-based research, and reflecting on learning. Through teamwork and a research-based project, students apply these skills to authentic academic tasks. By the end of the module, students will be able to plan, produce, and present structured academic work, collaborate effectively with others, and demonstrate the independent study skills required for undergraduate success.

Module aims

Develop the academic reading and listening skills required to succeed in the study of STEM .

Develop the academic writing skills required to produce coherent written genres for the study of STEM.

Develop the academic speaking skills required to deliver effective and engaging presentations and participate in seminar discussions.

Increase the range of academic language used within the study of STEM.

Introduce students to the academic conventions of STEM.

Introduce key research and inquiry skills and develop these to produce a research-based project in preparation for undergraduate study.

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.

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Academic Writing

- Select, evaluate and synthesise appropriate sources for an academic assignment.
- Express and justify an academic opinion by paraphrasing, quoting and summarising sources.
- Apply citation practices and referencing styles used in STEM.
- Plan a written academic assignment , presenting and developing ideals logically.

Academic Reading

- Select and apply appropriate reading strategies for different types of texts.
- Use note-taking strategies to check comprehension and aid long-term memory.
- Form an academic opinion by reading, evaluating and synthesising two or more sources.
- Develop effective self-study approaches to improve academic reading skills.

Academic Listening

- Select and apply appropriate listening strategies for lectures and seminars.
- Use note-taking strategies to check comprehension and aid long-term memory.
- Explain the impact of accent and other linguistic features on listening comprehension.
- Develop effective self-study approaches to improve academic listening skills.

Academic Speaking

- Plan structure and deliver an academic presentation based on a set theme or text relevant to the discipline.
- Design effective and accessible PowerPoint slides to support an academic presentation.
- Identify and develop the skills required for an effective seminar participant.
- Prepare for and participate in a seminar discussion based on a topic relevant to the discipline.

Academic Research and Inquiry Skills

- Develop key research and inquiry skills, including asking relevant questions, critically evaluating sources, formulating effective research strategies and reflecting on the research process.
- Articulate the purpose of different research methods and analyses, and the importance of research ethics in HE.

- Propose, plan and carry out a self-directed research project on a topic relevant to the discipline.
- Design an effective and accessible poster to support a presentation at a conference-style event where students can discuss and answer questions about their project.

Learning outcomes

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

- Analyse, interpret and evaluate spoken and written discourse for your chosen subject areas
- Synthesise relevant information/data to produce discipline specific written or spoken genres incorporating own ideas
- Communicate effectively in written and spoken genres, employing academic conventions relevant to the discipline
- Plan, undertake and reflect on self-directed research using methodologies appropriate to your subject area

Research element

Research project

Interdisciplinary

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

International

All students are international, representing a wide range of cultural, linguistic, and educational backgrounds. They bring diverse experiences and perspectives, enriching discussion and supporting the development of intercultural awareness. Examples for analysis and evaluation are drawn from a variety of countries, ensuring that teaching and learning are embedded in an international context.

Subject specific skills

Strategies to read discipline specific genres effectively.

Strategies to listen to discipline specific genres effectively.

Techniques to produce coherent discipline specific written genres.

Techniques to deliver effective and engaging presentations.

Strategies to participate effectively in a seminar discussion.

Techniques and strategies to conduct and present a research project effectively.

Transferable skills

Study skills
Academic integrity skills
Independent study skills - planning, time management
Information literacy skills - library skills, effective internet searching
Research methodology
Research skills
Inquiry skills - asking questions, seeking and analysing different answers, making your own conclusions
Critical and innovative thinking
Group work skills
Reflective thinking/writing
Employability skills - group work and problem-based learning

Study

Study time

Type	Required
Seminars	23 sessions of 4 hours (31%)
Private study	148 hours (49%)
Assessment	60 hours (20%)
Total	300 hours

Private study description

Background reading prior to classes, research for written assignments, completion of assessments and conference presentation preparation.

Costs

No further costs have been identified for this module.

Assessment

You must pass all assessment components to pass the module.

Assessment group A

	Weighting	Study time	Eligible for self-certification
Assessment component			

	Weighting	Study time	Eligible for self-certification
Student Led Seminar	30%	18 hours	No

Individual presentations leading to a group discussion on a topic appropriate to the discipline.

Reassessment component

Academic Discussion No

Individual presentation leading to a one-to-one discussion on a topic appropriate to the discipline

Assessment component

Writing Assessment 30% 18 hours Yes (extension)

A written assignment on a topic appropriate to the discipline

Reassessment component is the same

Assessment component

Research Proposal 15% 9 hours Yes (extension)

A written proposal for the research project

Reassessment component is the same

Assessment component

Academic Poster 10% 6 hours Yes (extension)

An academic poster (size A2) with research project outcomes

Reassessment component is the same

Assessment component

Poster Presentation 15% 9 hours No

The presentation of an academic poster with research project outcomes at an academic conference

Weighting

Study time

Eligible for self-certification

Reassessment component

Poster Presentation

No

An individual presentation of academic poster with research project outcomes

Feedback on assessment

Written feedback on Tabula.

Availability

There is currently no information about the courses for which this module is core or optional.