

IL140-15 Your Idea, Your Research: How to pursue your Passion Project at Warwick

24/25

Department

Institute for Advanced Teaching and Learning

Level

Undergraduate Level 3

Module leader

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Credit value

15

Module duration

10 weeks

Assessment

100% coursework

Study location

University of Warwick main campus, Coventry

Description

Introductory description

This is an introductory module on exploring and reimagining what interdisciplinary research looks like with the aim of providing a space for you to develop your own 'passion project'. Whether you begin the module with an idea to develop or not, this module will help you acquire the skills, knowledge and network to produce an interdisciplinary research project on a topic and in a format of your choice. It is an opportunity for you to shape what it means to be an interdisciplinary student researcher, how research is (and can be) conducted and developed into an output, and who you are as an interdisciplinary researcher. We will ask you to consider the broad spectrum of intentions when it comes to conducting interdisciplinary research – is it to create a new artefact, with enterprise in mind? To inform a particular sector or industry? To raise public awareness? To review existing scholarly work and highlight or address gaps? To develop a piece of art or music to perform or share? Maybe it's something else?

On this module, you will follow a step-by-step guide (in the form of a weekly workbook) that introduces the interdisciplinary research process and will help shape your learning experience. This weekly workbook will be used as a formative tool throughout the course of the module to break down the interdisciplinary research process into digestible steps, and guide you towards

your final research project. Inspired by an approach developed at the University of Birmingham and drawing on the 'Integrated Model of the Interdisciplinary Research Process' proposed by Repko and Szostak (2020) you will learn an approach towards conducting interdisciplinary research that can be applied in research contexts across all disciplines. These steps have been integrated into this module's curriculum and as such, form an integral part of the student experience of conducting interdisciplinary research. By the end of the module, you will have gained the knowledge and skillset to conduct interdisciplinary research in the future.

Over the course of the term, we will facilitate reflection on power structures and knowledge hierarchies, utilising interdisciplinary skills of reflection, collaboration, critical thinking and dealing with uncertainty to reconsider what we mean by 'research', and how to conduct it. You will identify yourself as a researcher as you progress in your own way, drawing on your existing disciplinary knowledge, experience and expertise to produce an interdisciplinary project. The project will be developed over the course of 10 weeks by working collaboratively in multidisciplinary peer groups each week, engaging with guiding interdisciplinary research themes, and will be supported by Module Contributors to acquire different perspectives on a topic of your choosing. You will work together with your peers towards the production of an individual research project (i.e. a Student-Devised Assessment) that you can then carry forward within and beyond the academy, however you wish.

The module will enable you to become an active learner and co-creator of course content while developing your own lines of enquiry throughout the module with support from staff and students from different disciplinary backgrounds. Its central aim is to empower you to contribute to the shaping of the University's research culture, further enhance your disciplinary excellence by exploring how your existing knowledge and experiences add value to the interdisciplinary research landscape, and to become a confident interdisciplinary researcher of the future.

[Module web page](#)

Module aims

- To engage students in a critical reflection of what interdisciplinary research is (or can be) and how interdisciplinary research is (or can be) conducted within existing research cultures and power structures;
- To provide opportunities for students to co-create and co-construct an inclusive research culture that stretches and challenges existing barriers to research;
- To draw on students' existing disciplinary excellence to develop the core interdisciplinary skills of collaboration, reflection, critical thinking, and dealing with uncertainty;
- To facilitate the identification of personal skills and value as an interdisciplinary researcher, and supporting each student in the development of their own interdisciplinary research project.
- To provide students the opportunities to acquire the knowledge and skillset to conduct interdisciplinary research in the future.

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.

Week One: What is 'Research'? An introduction to the history and current approaches to research, exploring how research has developed over time, what is considered research, what knowledge and power structures exist within research cultures, and how these approaches may be limited. Students will be encouraged to reflect on the type of research that occurs within their discipline and how this has influenced their perceptions of research. In Week One, students will meet their assigned multidisciplinary peer group, who will become a support network in the development of their Student-Devised research project over the course of the module.

Week Two: What is Interdisciplinarity? What is a discipline? An introduction to the key concepts of inter- trans- and multi- disciplinary learning and what this entails for research. Students will explore key characteristics of interdisciplinarity as defined by IATL, namely collaboration, reflection, critical thinking, and dealing with uncertainty, and will be encouraged to identify what interdisciplinary research looks like to them. Building on their reflections of disciplinary research in week one, students will explore how an interdisciplinary approach may enhance their understandings and processes of research. In Week 2, multidisciplinary groups will reflect on research interests together, and begin to formulate how they perceive given research themes of interest as 'interdisciplinary'.

Week Three: Knowledge Structures and Research Paradigms. Building on introductions, this week will explore in more detail different structures of knowledge creation and exchange that exist within research. Students will explore concepts of truth and different approaches to discovering such truth through different research designs and paradigms. They will collaboratively work with fellow students to identify their own perspectives on knowledge and truth within research cultures. In Week Three, multidisciplinary peer groups will reflect on how knowledge structures have influenced their thinking on their own budding interdisciplinary research projects, by working through the process of defining and justifying the problem they would like to investigate or stating (and justifying) the research question they would like to answer in their research.

Week Four: What counts as Research? This session will take on a contemplative pedagogical approach to encourage students to discuss what they believe research is or what it should be. Students will collaboratively explore what are considered necessary and sufficient elements, skills, and approaches of research, and whether we can challenge more traditional ideas and power structures which value certain types of research over others. Students will explore creative and radical approaches to research, and reconsider what 'research' they have conducted in the past. In Week Four, students will discuss with their multidisciplinary peer group how their developing research projects fit within the existing research landscape. To what extent does it rely on traditional approaches? To what extent does it push boundaries? Students will learn how to clearly identify relevant disciplines in interdisciplinary research.

Week Five: Skills as a Researcher. This session will encourage students to collaboratively explore what skills they have as researchers, and what skills they feel are important for research. In Week 5, multidisciplinary peer groups will consider their individual research skillset, what they can learn from other disciplines, and how this impacts their thinking on the development of their individual research projects. Students will learn about literature searches in an interdisciplinary context and how to develop adequacy in relevant disciplines. The session will also explore abstract writing in preparation for their first assignment.

Week Six: Critical Thinking Across Disciplines. As one of the key characteristics of interdisciplinary education, this session will explore critical thinking skills in more detail, supporting students in

reflecting on and developing their own critical thinking skills – particularly when introduced to new disciplinary approaches in research. They will explore a series of quick-fire research questions, arguments and problems and reflect on how an interdisciplinary approach helps tackle these. Multidisciplinary peer groups will discuss their experiences engaging in critical analysis/evaluation across disciplinary borders, and will apply this learning to analyse their research problem and evaluate insights gained so far.

Week Seven: Dealing with Uncertainty. Another key characteristic of interdisciplinary education, this session will explore how researchers deal with uncertainty in their work, and how we might best overcome this. In Week Seven students will critically reflect on the extent to which their research activity so far has introduced them to new spaces of learning, new forms of knowledge and new theoretical and methodological approaches to problem-solving. They will identify conflicts among insights gained and their sources on their developing research project.

Week Eight: Planning Research One. This a facilitated session where students begin to explore their proposed interdisciplinary research projects. This session will cover some of the key steps of conducting research, including identifying research problems, conducting literature reviews, and proposing a research design. Students will be encouraged to think radically about how they want to conduct their research in their own way and will be supported in exploring different stages of research. In Week 8, students will work in their multidisciplinary groups to consolidate their research plans for their Student Devised Assessment, and begin considering how they are communicating their project's aims, argument(s) and/or focus to multidisciplinary and/or non-specialist audiences. Students will therefore be creating common ground among insights gained, including concepts and/or assumptions in the continued development of their SDA.

Week Nine: Planning Research Two. A second facilitated session for students to explore their proposed interdisciplinary research projects. This session will cover data collection, analysis, and interpretation, but once again students will be encouraged to think radically about their research. Multidisciplinary peer groups will explore the extent to which each other's research projects challenge existing research culture and what form of interdisciplinarity (and/or its variants) appear in their research project plans. Students will work to construct a more comprehensive understanding of their interdisciplinary research project.

Week Ten: How do we change the world? How do we have an impact? The final session of the module will reflect on how research sits within a wider context of knowledge and power structures, including political, social and economic landscapes. Students will explore how research can have impact in the world, how it can lead to greater societal change, and what their role as interdisciplinary researchers may be in this. In this session, students will have an opportunity to Peer Review each other's research project plans, which will inform their final assessment components. They will reflect on, test and/or communicate their understanding of each other's projects. We will also explore the range of additional research dissemination opportunities available to UG students through IATL.

Learning outcomes

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

- Evaluate key characteristics of interdisciplinary 'habits of mind', 'habits of heart' and 'habits of hand', as they identify them;

- Critically reflect on their experience developing as an interdisciplinary researcher by drawing on their existing disciplinary excellence;
- Demonstrate an ability to critically appraise the challenges and opportunities of existing research culture(s);
- Critically engage with the concepts and characteristics of research including knowledge creation, research paradigms, ethical research and inclusive research to their work;
- Create and critically reflect on their own interpretations and approaches to interdisciplinary research;
- Produce an interdisciplinary research project on a topic of their choice;
- Critically appraise research feedback and apply their engagement to their interdisciplinary project work.

Indicative reading list

Barry, A., Born, G. and Weszkalnys, G. (2008) 'Logics of interdisciplinarity'. *Economy and Society*. 37(1), 20-49.

Brister, E. (2016). 'Disciplinary capture and epistemological obstacles to interdisciplinary research: Lessons from central African conservation disputes'. *Studies in History and Philosophy of Biological and Biomedical Sciences*. 56, 82-91.

Collins, H. and Evans, R. (2002) *The Third Wave of Science Studies: Studies of Expertise and Experience*. Sage: London.

Delanty, G. (2001) *Challenging knowledge. The university in the knowledge society*. Society for Research into Higher Education and Oxford University Press, Buckingham.

Mäki, U. (2013). 'Scientific imperialism: Difficulties in definition, identification, and assessment'. *International Studies in the Philosophy of Science*, 27, 325-339.

Nowotny, P. Scott and M. Gibbons (2001) 'Re-Thinking Science: Knowledge and the Public in an Age of Uncertainty'. Polity Press, Cambridge.

O'Rourke, M., Crowley, S., & Gonnerman, C. (2016). 'On the nature of crossdisciplinary integration: A philosophical framework'. *Studies in the History and Philosophy of Biological and Biomedical Sciences*. 56, 62-70.

Repko, A. (2008) *Interdisciplinary Research: Process and Theory*. Sage, London.

Repko, A.F. & Szostak, R. (2020) *Interdisciplinary Research: Process and Theory*. 4th edn. Sage.

Verouden, N. van der Sanden, M. and N. Aarts (2016). 'Silence in Interdisciplinary Research Collaboration: Not Everything Said is Relevant, Not Everything Relevant is Said'. *Science as Culture*, 25 (2): 264-288.

Walkington, H. & Ommering, B. (2022) 'How does engaging in authentic research at undergraduate level contribute to student wellbeing?' *Studies in Higher Education*. 47 (12) pp.2497-2507.

Weingert, P. and N. Stehr (2000) *Practising Interdisciplinarity*. University of Toronto Press,

Toronto.

Week 1: What is Research?

Bartlett, A.J., Ansell-Pearson, K., Badiou, A., Balso, J., Clemens, J., Dolar, M., Federici, S., Hussain, M., Larrosa, J., Lotti, L., & Russo, A. (2022) *What is Education?* Edinburgh: Edinburgh University Press.

Hancké, B. (2009) *Intelligent Research Design: A Guide for Beginning Researchers in the Social Sciences*. Oxford: Oxford University Press.

Hensley, M.K., Fargo, H. & Davis-Kahl, S. (2023) (eds.) *Undergraduate Research and the Academic Librarian: Case Studies and Best Practices*. Association of College & Research Libraries.

Lowe, M. (2007) *Beginning Research: A Guide for Foundation Degree Students*. Routledge.

Hensley, M.K., Fargo, H. & Davis-Kahl, S. (2023) (eds.) *Undergraduate Research and the Academic Librarian: Case Studies and Best Practices*. Association of College & Research Libraries.

Week Two: What is interdisciplinarity?

Nissani, M. (1995) 'Fruits, Salads, and Smoothies: A Working Definition of Interdisciplinarity'. *Journal of Educational Thought*. 29, 119-126.

Shulman, L.S. (2005) 'Signature Pedagogies in the Professions'. *Daedalus* 134(3), 52-59. (More listed in general list above)

Week Three: Knowledge Structures and Research Paradigms.

Kuhn, T. (1996) *The structure of scientific revolutions*. London, University of Chicago Press.

Goertz, G., & Mahoney, J. (2012) *A Tale of Two Cultures: Qualitative and Quantitative Research in the Social Sciences*. Princeton: Princeton University Press.

Lorenzini, D. (2015) "What is a 'Regime of Truth'?" *Le foucauldien*. 1(1), 1–5.

Week Four: What counts as Research?

Contemplative pedagogies. Students to bring literature.

Week Five: Skills as a Researcher.

Gaast, K., Keestra, M., Koenders, L., & Post, G. (eds.) (2021) *Chapters on Interdisciplinary Research and Research Skills*. Amsterdam: Amsterdam University Press.

Miller, A. (2018) *It's a Matter of Fact: Teaching Students Research Skills in Today's Information-Packed World*. New York: Routledge.

Week Six: Critical Thinking.

Hanscomb, S. (2017) *Critical Thinking: The Basics*. London: Routledge.

Heiman, J. (2014) "'Odd Topics' and Open Minds: Implementing Critical Thinking in

Interdisciplinary, Thematic Writing Courses,” *Pedagogy*. 14(1), 107-135.

Week Seven: Dealing with Uncertainty.

Böhle, F., Heidling, E., & Schoper, Y. (2016) ‘A new orientation to deal with uncertainty in projects’. *International Journal of Project Management*. 34(7), 1384–1392.

Kaufman, P. (2017) ‘Critical Contemplative Pedagogy’. *Radical Pedagogy*. 14(1) (Especially the section on accepting “impermanence”).

Fochler, M & Sigl, L. (2018) ‘Anticipatory uncertainty: How academic and industry researchers in the life sciences experience and manage the uncertainties of the research process differently’. *Science as Culture*. 27(3), 349–374.

Research element

All students will undertake an individual research project in the form of a Student-Devised Assessment (SDA) with the support from their peers from different disciplinary backgrounds over the course of the term. Students will work closely with an assigned IATL Project Supervisor to develop an academically rigorous interdisciplinary project in an agreed format which best articulates their ideas, and will satisfy the learning outcomes for this module. Themes that generate interdisciplinary thinking will be provided to guide students towards establishing a research question/point of inquiry to investigate, and will be guided by a step-by-step introduction to interdisciplinary research model proposed by Repko and Szostak (2020) in the development of their research project over the term. Students will also be individually exploring their development as an Interdisciplinary Researcher over the 10-weeks by reflecting on their experiences on the module (and beyond) that contribute to this development. The assessment programme also supports learning how to write an abstract and research project proposal, as well as how to engage positively and meaningfully with feedback received on their academic work.

Interdisciplinary

The module exposes students to interdisciplinarity in four very direct ways. Firstly, the module content introduces students to a number of concepts within interdisciplinary education, learning, and research, encouraging students to critically engage with these as they develop their own interdisciplinary research project (in the form of a Student-Devised Project). Second, they will explore the four key skills of interdisciplinarity, namely collaboration, reflection, critical thinking, and dealing with uncertainty, as well as other concepts around conducting interdisciplinary research. Third, they will work over the course of the module in assigned multidisciplinary peer groups to encourage collaboration, the integration of different disciplinary insights and approaches towards a given topic, and to tackle the ‘unknown’ together. And fourth, they will be guided over the course of the 10 weeks by a model proposed by Repko and Szostak (2020) that introduces students to interdisciplinary research and how to practically develop a project, step-by-step, along side this.

International

This module encourages students to reflect on their academic, personal and/or professional experiences, knowledge and skills that contribute to the development of becoming an

Interdisciplinary Researcher. This approach in itself allows students to consider the local and international/global contexts in which research is perceived, valued, designed, disseminated and applied. Drawing on these experiences will aid in understanding the complexities of these power structures that exist within the global knowledge economy and transnational research collaborations. This element addresses one of the key aims and learning outcomes of the module, where existing research cultures are explored, critically evaluated, and challenged

Subject specific skills

Due to its interdisciplinary nature, skills learned in this module are transferable and applicable across the disciplines, and are seen to supplement existing disciplinary excellence developed in the students' home departments.

- Researching in an interdisciplinary context,
- Communicating to an interdisciplinary audience
- Applying research methodologies, theories, practices and knowledge from disciplines outside their subject area

Transferable skills

Critical thinking, reflection, collaboration, research planning, problem solving, dealing with uncertainty, project management, communicating research impact, innovation, original thinking, creativity, risk-taking

Study

Study time

Type	Required
Seminars	10 sessions of 2 hours (13%)
Project supervision	2 sessions of 1 hour (1%)
Private study	28 hours (19%)
Assessment	100 hours (67%)
Total	150 hours

Private study description

As a blended module, students will be encouraged to engage with online materials including readings, pre-recorded presentations and videos. Private study will also involve weekly tasks to complete in preparation for timetabled teaching sessions.

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 A

	Weighting	Study time
Abstract + Project Plan	10%	10 hours
<p>Reflecting on feedback and making revisions is an integral part of the research process. To emphasise the value of receiving, interpreting and engaging with feedback on research projects, this first assessment component is essentially the first draft of a budding research project plan. Students will submit a 200 word abstract and a 500 word project plan proposal to initiate the feedback dialogue.</p>		
Interdisciplinary Research Project	50%	50 hours
<p>This is an Interdisciplinary Research Project, demonstrated through a negotiated format (i.e. a Student-Devised Assessment – 2500 words or equivalent). Small multidisciplinary groups will be formed in the first weeks of the module, based on common thematic interests of students and/or the desired intentions of their final projects (e.g. to create, to review, to raise awareness). These multidisciplinary peer groups will be essential support networks to enable students to collaborate in knowledge exchanges – drawing on their disciplinary excellence to contribute to regular peer review as each project develops. Students on the module will be given an assignment brief containing guiding themes (and intentions) which encourage interdisciplinary approaches to research, though of course they are welcome to go beyond this list, if they would like to. Students will be assigned a Project Supervisor, who will support the development of the project over the course of the module.</p> <p>The final research project will be, in the end, on a topic of the student's choosing, and in a medium/format that they feel best articulates the message of the project. This approach encourages interdisciplinarity and creativity and innovation in student research. The assignment is designed to encourage students to reflect on their academic, personal and/or professional aspirations, as well as the kind of impact they would like to have with their research project.</p>		
Reviewed and Revised Abstract + Reflective Covering Letter	40%	40 hours
<p>Students will review the feedback received from the first draft of their Abstract and Research Project Plan, as well as consider the formative peer review feedback they received in Week 10 to revise their Abstract. Along with their revised 200 word Abstract, they will submit a 800 word Reflective Covering Letter which will reflect on their interactions with the feedback received, what they have learned since receiving that feedback, how decisions were made to implement amendments and how they did this. This assignment will be submitted at the same time as the final Research Project (the Student Devised Assessment).</p>		

Feedback on assessment

Students will receive face-to-face formative feedback/feedforward on their ideas and progression throughout the module by the Module Convenor(s) and Contributors. Each week, they will have the opportunity to work in their assigned multidisciplinary peer network to receive peer support and feedback on their weekly homework tasks. They will receive summative written feedback on their abstract and project plans towards their final Research Project. Students will also receive formative feedback in the form of a Peer Review session in Week 10, as students present their preliminary Research Project ideas to their peers. Students will then have the opportunity to 'review and revise' their abstract ideas, taking this feedback proactively into consideration and applied towards the second and final version, alongside a Reflective Covering Letter which gives the student an opportunity to reflect on and narrate the steps they took in the final developments of their research project. Each submitted Assessment piece will receive detailed written feedback/feedforward by their marker.

Availability

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