

EDINBURGH FUTURES INSTITUTE: EQUIPPING STUDENTS FOR COMPLEX, UNKNOWN FUTURES THROUGH RADICAL CURRICULUM DESIGN



THE UNIVERSITY
of EDINBURGH

GAVIN MCCABE SABINE ROLLE ANDY CROSS



Co-funded by the
Erasmus+ Programme
of the European Union



**EPD
Feedback
Loop**

CONTRIBUTORS

DR GAVIN MCCABE

Email :
Gavin.McCabe@ed.ac.uk

PROFESSOR SABINE ROLLE

Email : S.Rolle@ed.ac.uk

DR ANDY CROSS

Email:
Andrew.Cross@ed.ac.uk

SUMMARY

At the University of Edinburgh, we are transforming our curricula to ensure our graduates, and the knowledge we discover with our partners, make the world a better place; to ensure we are a place of transformation and of self-improvement, benefitting individuals, communities, societies and our world; and to ensure our students' degrees are a foundation for future learning, ethical global citizenship, and enhanced employability. Underpinning this vision and effort are a range of insights and evidence, including around the future of work and associated skills and mindsets needed by our graduates. This same research has fed into our Edinburgh Futures Institute and its new interdisciplinary degree programmes.

In this case study, we unpack some of the institutional and departmental contexts that are driving these developments, and then look specifically at the new MA (Hons) Interdisciplinary Futures degree programme: its overall ethos and approach; the stretch it will provide students and the associated importance of reflection; its focus on employability, graduate attributes, and networks and collaboration; and how a core course will act as a spine throughout the degree to integrate, strengthen, and deepen students' learning and development, and to equip them for success, now and in the complex, unknown futures they will step into.

Departmental context and rationale: This same future-focussed approach, thinking, and research, and the associated skills needs, are already fundamentally informing all degree programmes in our new Edinburgh Futures Institute (EFI). The purpose of EFI is to pursue knowledge and understanding that supports the navigation of complex futures. EFI's distinctiveness stems from its approach to research, education, and engagement – an approach that combines multi-disciplinarity with co-production. Working with industry, government, and communities (at home and abroad) EFI builds a challenge-led and data-rich portfolio of activity that has demonstrable ethical, social, cultural, economic, and environmental impacts (University of Edinburgh, 2021a). As a result, EFI's work was informed not only at the outset by future-focused labour market intelligence but through these external partnerships EFI's work will have a sustained, vibrant, and future-focused collaboration with the labour market, shaping and benefitting the student experience, for example through students working on real-life challenges. Our EFI postgraduate degree programmes launched in 2022/23 and our new EFI undergraduate programme, [MA \(Hons\) Interdisciplinary Futures](#), will launch in 2023/24 (University of Edinburgh, 2021b). This new undergraduate programme will help students develop the confidence, knowledge, and skills to work, live, and make a difference in a rapidly changing world.



METHODOLOGY & IMPLEMENTATION

Programme ethos and approach: The new undergraduate programme MA (Hons) Interdisciplinary Futures is designed to develop key employability skills and collaborative experiences, focused on global and local challenges, and linked to cutting-edge research and the big future issues facing our planet and societies (University of Edinburgh, 2021b). The programme is aligned with EFI's aim to build educational programmes that encourage students to challenge, create, and change. Using a problem-based, experiential approach to student learning, it scaffolds students' activities and learning around a series of challenge questions (linked to [Grand Challenges](#) and the [UN's Sustainable Development Goals](#)). Those challenges are almost by definition so complex that they are beyond the reach of a single discipline, and thus our programme is interdisciplinary in outlook and design from the very start.

Stretch, reflection, and reflexivity: Our market research has shown that students are potentially very excited about this approach. It may not be for everyone, but there is a growing number of prospective students who will love to learn skills and methods taken from different areas of academic enquiry and analysis, and use them to explore some of the big questions our world is facing today. However, it is also very clear that this is a very challenging new approach for our prospective students. This kind of interdisciplinary and problem-based learning, with its lack of neat answers and the need to cope with high levels of uncertainty or ambiguity, will take many of them out of their comfort zone. Reflection and reflexivity are therefore going to be key both in supporting students to deal with this stretch and uncertainty, and as an essential skill and quality needed for the future of work and society. With this in mind, our approach is to embed reflection at the programme level, rather than just through individual course assessments. Reflective learning (and its assessment) is at the programme's centre to encourage students to challenge, create, and change (Cross & Rolle, 2022).

Employability, graduate attributes, and networks: Informed by our research into the needs of the future of work, career outcomes and employability are key aspects of our undergraduate programme, its design, development, and content. Interdisciplinary study is designed to give students the confidence, knowledge, and skills to work and pursue a career in a rapidly changing world. They will develop the personal and professional skills required to work across a range of roles in different fields and careers. The MA Interdisciplinary Futures will do this by offering practical, hands-on learning. It is designed so students can connect with the communities, businesses, employers, and environments they will find in the professional world. For example, students will work in small interdisciplinary teams to respond to complex challenge questions set by an external organisation, business, or local community. Students get support and training to develop their skills in areas such as team working, problem solving, and critical data analysis and use these skills together with their understanding of academic theories and methods to propose a solution to the challenge. A variety of authentic assessment methods such as impact reports, presentations, and blogs will support the development of strengths in communicating with different audiences and through different mediums. This means students on the degree will be able to develop applied and practical skills that are valued by employers and access a diverse network of support to help them on their journey (University of Edinburgh, 2021c).

Reflections on Interdisciplinary Practice: Throughout the undergraduate degree, the development of these future skills is central. This is being tackled not only at the individual course level, but also at the programme level. To ensure the degree is greater than the sum of its parts, we are creating a core course that integrates the learning within and across all four years. This course, 'Reflections on Interdisciplinary Practice', will exist in all four years of the undergraduate degree, drawing together learning throughout each year of study, and building on the previous. Through this, students will develop honed, nuanced, and adaptable strengths across a diverse portfolio of future-focused attributes.

ANALYSIS AND EVALUATION

Given the level of innovation involved, and our hopes that the learning from this new model of degree programme will inform our curricular provision more widely across the University, evaluation will be critical. Multiple perspectives will feed into the evaluation, including students and staff, and this will be particularly key as the first cohort encounters each year of study. But we will also review and re-evaluate each year's provision as we progress. This will be particularly the case for the Reflections on Interdisciplinary Practice course. Here, our plans for peer and near-to-peer interaction between students within and across multiple years of the degree mean that some elements of the structure will continue to be revised throughout the first four years of the degree programme's life. We are still developing our planned approach to evaluation for this programme and will want to harness both established 'student voice' routes and perspectives beyond our current students, including external stakeholders, alumni, employers, and even prospective students in terms of how this new type of curricular offering is communicated, understood, and valued.



REFLECTIONS, CONCLUSIONS, AND NEXT STEPS

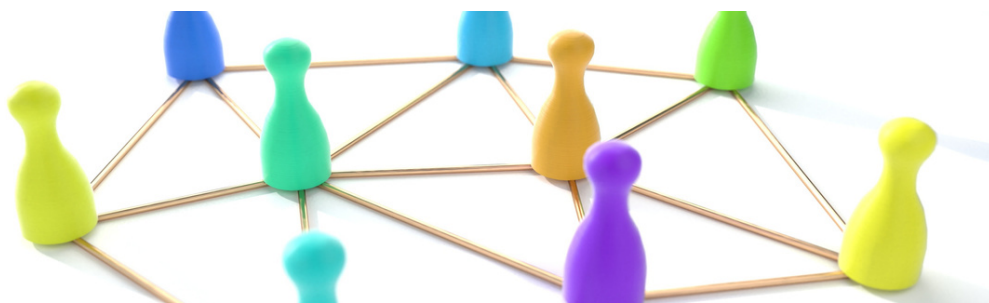
Senior support and buy-in has been, and continues to be, essential. This is true at the institutional level where we hope our Curriculum Transformation Programme will support our vision of being a place of transformation and of self-improvement, and will provide our students with an educational foundation for future learning, ethical global citizenship, and enhanced employability. However, this is also true at the departmental, programme, and course levels within EFI where we strive to achieve a transformation in our learning and teaching, and in our students' skills and mindsets, preparing them for complex and unknown futures. The underpinning future-focused insights, evidence, and labour market intelligence mentioned throughout this case study, have contributed to securing that support and buy-in.

Alongside this senior support and buy-in, the staff community formed in and around EFI has been pivotal in its existing and ongoing innovation and success. We have been able to draw together staff from across the University and beyond who are passionate about contributing to this new and exciting venture, often as secondees or as critical friends, harnessing their disciplinary, educational, and professional services expertise to create our vibrant student experience and educational offering.

This is not to say that there have been no challenges along the way. Developing an interdisciplinary programme can be difficult where many staff have strong and research-related discipline identities and where long-standing structures have been built around established disciplines. On top of this, any kind of innovation is costly in development.

However, alongside the senior support, there has been a lot of freedom for staff to build the desired curriculum. Our success has been dependent on the ongoing enthusiasm from these staff and in turn this has drawn out others who are excited by the potential, including those who do not always find it easy to make space for this type of work where there are other competing demands on their time.

At the time of writing, the development work for the new EFI undergraduate degree is still underway. The first cohort of students will start in September 2023, and the work to build, revise, and refine the degree will continue progressively over the following years leading to our first students graduating in 2027. We are excited to see how they will change the world around them, both during the degree and beyond, and how our curricula will evolve and transform as a result of what we learn with them!



REFERENCES

Cross, A. & Rolle, S. (2022). Reflective design: Programme-level reflection and its assessment. Retrieved from <https://www.teaching-matters-blog.ed.ac.uk/reflective-design-programme-level-reflection-and-its-assessment>. [Accessed 30 March 2023]

McCabe, G. & Thejll-Madsen, T. (2018). The Reflection Toolkit. Retrieved from <https://www.ed.ac.uk/reflection>. [Accessed 30 March 2023]

Stanford Life Design Lab (2022). Stanford Life Design Lab. Retrieved from <https://lifedesignlab.stanford.edu>. [Accessed 30 March 2023]

University of Edinburgh (2021a). Edinburgh Futures Institute: About us. Retrieved from <https://efi.ed.ac.uk/about>. [Accessed 30 March 2023]

University of Edinburgh (2021b). Edinburgh Futures Institute: Undergraduate study: MA Interdisciplinary Futures. Retrieved from <https://efi.ed.ac.uk/undergraduate-study>. [Accessed 30 March 2023]

University of Edinburgh (2021c). Edinburgh Futures Institute: MA Interdisciplinary Futures: Careers and employability. Retrieved from <https://efi.ed.ac.uk/undergraduate-study/careers-employability>. [Accessed 30 March 2023]

University of Edinburgh (2022a). Strategy 2030. Retrieved from <https://www.ed.ac.uk/about/strategy-2030>. [Accessed 30 March 2023]

University of Edinburgh (2022b). Curriculum Transformation. Retrieved from <https://www.ed.ac.uk/about/strategy-2030/strategy-in-action/curriculum-transformation>. [Accessed 30 March 2023]

University of Edinburgh (2022c). Insights and evidence. Retrieved from <https://www.ed.ac.uk/staff/teaching-matters/curriculum-transformation-programme/insights-evidence>. [Accessed 30 March 2023]



THE UNIVERSITY
of EDINBURGH



Co-funded by the
Erasmus+ Programme
of the European Union



EPD
Feedback
Loop