



**BA(HONS)  
SUSTAINABLE  
FUTURES:  
ARTS, ECOLOGY AND  
SYSTEMS CHANGE**

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**MODULE OVERVIEW**

Coleg y  
Mynydd  
Du



Black  
Mountains  
College



# WHAT WILL I LEARN ON THE BMC DEGREE?

## YEAR 1

How can we learn in a changing world?

## YEAR 2

How can we address some of the world's most urgent challenges?

## YEAR 3

A question that you design yourself



# YEAR 1 EXPLORES THE QUESTION: HOW CAN WE LEARN IN A CHANGING WORLD?

Year 1 is taught using the 'block method'. You study each module one after the other, rather than juggling several modules at the same time. Each module will be taught in a 5-week block, with 15 days direct face-to-face teaching.

## HOW CAN WE LEARN THE SKILLS WE NEED TODAY?

Explore your own history of learning, your aims for the future, and the skills that are required to achieve systems change in the context of climate disruption.

After reflecting on your own history of learning, the module will be taught in 3 thematic sections; **Mind, Body and World**.

Each seminar will also have a thematic heading, such as: *'finding your voice in higher education'*, *'how do we know what we know?'*, and *'how can we learn skills that do not yet exist?'*

# HOW CAN WE UNDERSTAND THE PAST?

We will start in the present, considering an event related to the ecological crisis such as; natural disasters, global warming events, an episode in the Covid-19 pandemic, a Black Lives Matter protest, or an event related to the civil war in Syria. You will be encouraged to engage critically with how this event is narrated in the media.

We will look at principles of evolutionary biology and how these lead to aspects of human behaviour that have underpinned the journey to the climate and ecological breakdown. Gain an introduction to essential Earth processes (carbon, water, nitrogen and phosphorous cycles, plate tectonics) and the science of climate change.

Next, we will work backwards in time to understand the origins of these events and processes over time to consider how 'beginnings' might be reconceptualised and understood to develop ecological and climate literacy.



# CREATIVE PRACTICE 1 & 2

Compare various methods of creative practice that allow you to consider what is learnt from different forms of artistic practice; how the senses interrelate; and how creative forms shape relations among people and with the natural world. Experiment with and utilise a range of contrasting creative, artistic or technical skills; develop an aesthetic sensibility, appreciate detail, quality and diversity.

Utilise different senses to perceive, observe and engage with the world around you and factor ethical considerations into your practice. Creative Practice 2 will also include an introduction to inclusive forms of practice and will emphasise ways of attending to communities and practices that may in the past have been marginalised or silenced.

Identify a form of creative practice you wish to develop in greater depth in Year 2. Creative Practice 2 culminates in a student-led event that showcases pieces of work produced.

## SYSTEMS CHANGE 1: FRAMEWORKS & MODELS

Discover how to think about systems change as a mode of addressing the causes, rather than symptoms, of climate change and other urgent challenges. Three thematic frameworks for approaching systems change will be introduced: *arts and the imagination*; *ecology*; and *sociotechnical systems*.

Build your knowledge base in critical areas such as ecological, economic, social, political and philosophical thought.

# CHANGE IN PRACTICE 1

Work on practical challenge on the BMC campus or in a local community and engage with external partners to develop skills directly relevant to worldly challenges and future employment.

Identifying possible solutions to a water supply and/or drainage issue within a specified location on the BMC farm campus, working through scenarios for 3 potential solutions, problem-solving within each and presenting your chosen solution to the tutor and/or a relevant professional expert.

Working with a local housing developer to understand the challenges in developing a project for intergenerational housing, and interviewing a focus group of older people on their concerns or interest in the project, and presenting your findings to the tutor and/or a relevant professional expert.

## **EXAMPLES OF CHALLENGES ENCOUNTERED DURING THE MODULE MIGHT INCLUDE:**

Identifying potential solutions within the transport plan that connects the farm campus with a new BMC site elsewhere in the Brecon Beacons; working up a potential solution in detail and presenting it to the tutor and/or a relevant professional expert.

Undertaking volunteer work to support nature literacy projects within a local primary school, and identifying potential long-term solutions for how such work can be supported on an ongoing basis in light of budgetary challenges, and presenting ideas on this to the tutor and/or a relevant professional expert.

# **YEAR 2** EXPLORES THE QUESTION:

# **HOW CAN WE ADDRESS SOME OF THE WORLD'S MOST URGENT CHALLENGES?**

Year 2 is taught in two semesters, and you will study 3 modules in each 'half' of the year. The first half of the year further builds your interdisciplinary skills. In the second half, you will start to develop your own specialism.





Semester 1

# HOW CAN WE IMAGINE THE FUTURE?

You will start to develop 'futures literacy', responding to an uncertain future with skills of anticipation, resilience and imagination. The module will be taught in 4 phases:



**Landscapes of the Imagination** will help you to study earth systems and planetary limits that now inform and constrain the future, including warming tipping points and processes of biodiversity loss.

**Imagining the Future** will help you engage critically with imagined futures from art, literature, sociology, philosophy, indigenous traditions and governmental organisations.



**Engaging the Future** will help you critically evaluate human adaptation responses such as 'net zero', rewilding and geo-engineering.

**Changing the Future** will help you consider what forms of action are meaningful in the face of climate change and other forms of instability.



# SYSTEMS CHANGE 2: PRACTICES & METHODS

Further develop your theoretical understanding of key issues related to systems change, engaging with ideas drawn from the arts, ecology, and sociotechnical systems. Engage with thinkers and concepts from diverse fields, which may include philosophy, economics, literature, and earth sciences.

Turn theory into practice, apply some of the principles of human-centred problem solving to large- and small-scale challenges. Work in teams to analyse, compare and evaluate a range of competing ideas and data. Present a strategy for action, in order to create innovative solutions in light of changing earth systems.

Learn how design thinking has evolved, and how it might need to be adapted to allow for a range of biases and unwanted legacies to face the scale of future challenges.



# CREATIVE PRACTICE 3

Develop your own creative practice in more depth through seminars and structured time with mentors. Contextualize your own practice, problem-solve, and compare approaches with others.

Look at the relationships between creative practice and real-world contexts. How do we apply creative or artistic approaches to environments that are not commonly perceived as artistic? Explore notions around play, imagination, conviviality, empathy, agency and community, all of which are engendered through an artistic approach.

Explore how creative approaches to social challenges can be transformational and the ethical questions inherent to inclusive practice.



Semster 2

# CHOOSE ONE OF:

## **1. AGROECOLOGY FOR FOOD SYSTEM TRANSFORMATION**

Agriculture is arguably the most important thing that human beings do. How people live, and how many people live, depends largely on how we farm. Yet without ecologically coherent farming, the biosphere and the human society faces an uncertain future. This module will explore key trends in food, ecology, climate change, asking: What agriculture do we need and how can we create it? Students will have an opportunity to explore and experiment with relevant issues on the BMC farm itself and by engaging with other farms and farming practices in the region and around the world.

## **2. SOCIOTECHNICAL SYSTEMS FOR FUTURE GENERATIONS**

How are technologies going to develop in the next half-century? What are the cutting-edge developments in artificial intelligence, SMART systems, cyber-physical systems, digital technologies, blockchain or data science? How can we understand how such technologies, often dubbed 'Industry 4.0', may shape living and working, and how they may be interrelated with adverse environmental impacts and what changes can, and should, be made? What will the future of different industries and ways of living look like in this context?

This module will explore the implication and possibilities of Industry 4.0, combining an overview of some of the most exciting – and challenging – developments in technologies that are now emerging or will appear in the future.

Consider a wide range of ethical, practical and socio-technical issues. The module will enable students to develop the creative, decision-making and problem-solving skills to be ‘bridgers’ and ‘shapers’ of the future: not the technical experts, but the people who can shape how technologies are applied in settings as diverse as hospitals, schools, fire stations, farms, factories and in a local café.

## 3. CREATIVE PRACTICE FOR FUTURE GENERATIONS

You will develop your individual creative practice, while also placing it in the context of relevant future generations thinking.

You will consider the role of the arts in social change; securing more responsible and sustainable ways of living, developing your own interest in the relationship between 2-3 of the key goals of the Well-being of Future Generations Act in Wales (prosperity, resilience, health, equality, cohesive communities, a vibrant culture, and global responsibility).

There will be opportunities to consider the challenges and opportunities of developing creative practices that are inclusive of a range of communities, including those that have traditionally been marginalised. You will gain practical skills to enable you to utilise your creative practice to achieve forms of transformation in a range of settings.

# DESIGNING THE FUTURE

Develop your experience of utilising methods such as design thinking or systems thinking, enabling you to engage with complex challenges. Ethical thinking, developing empathy, emotional understanding and humility will be central to your approach to problem-solving here.

Draw on your emerging specialism in agroecology, creative practice or sociotechnical systems in the context of a single imagined future scenario.

This scenario might (for example) map in detail a picture of Wales in 2025, drawing on Morgan Parry's 2009 lecture; or might be in the form of an imagined college e-newsletter for Black Mountains College from 2060; or could be an imagined United Nations economic report comparing 2 countries from the Global South, the Global North in 2055.

You will work individually to research, then work in teams to map and compare your responses to the scenario and to create a shared understanding of the challenges and opportunities that emerge.

In addition, you will receive support in developing your own specialism, including a research question and placement or equivalent, to structure your studies in Year 3.



# CHANGE IN PRACTICE 2

Demonstrate an accomplished and innovative application of how to create change in practice. Work individually to respond to a 'live brief' from a partner organisation, applying a specialist field such as agroecology, sociotechnical systems or creative practice in real-world situations and projects.

Engage with a real-world challenge faced in a relevant industry or sector, and consider it in light of relevant theoretical contexts, data, policy or media debates, and likely future trends. Undertake both desk-based research and real-world explorations of the issues.

Propose a response that is appropriate to the brief set and that shows awareness of the principles of sustainable development and systems change.



# YEAR 3 ENABLES YOU TO DESIGN A QUESTION YOURSELF

In Year 3, you undertake one taught module in the first half of the year:

## WHAT NEXT? GLOBAL & LOCAL SYSTEMS CHANGE

You will gain a comparative understanding of different theories of change drawn from a wider range of relevant disciplines than those introduced in Years 1 and 2 (e.g. history, organisational studies, sociology) as well as further develop your understanding of natural and human-caused global change and its impact on marine, freshwater and terrestrial ecosystems. You will relate your understanding of these issues to your developing knowledge of futures literacy, so you can consider 'what comes next?' for humankind, locally and globally, and 'what comes next?' in your own development, including in your future career beyond graduation.

You will consider a series of case studies that demonstrate the complexities of these issues at global, national and local levels, and which articulate different models for future development. Each week will have a thematic title, under which particular case studies and issues will be considered.



## AN INDICATIVE LIST OF THEMES IS:

### Earth

- Land
- Water
- Scarcity
- Abundance

### Futures

- 2300
- 2150
- 2050
- 2030

### Work

- Outdoors
- Indoors
- Virtual
- Large and small organisations

In the first 8 weeks, case studies will be drawn from real examples; for example, the week on 'scarcity' would involve study of a real local food system in Peru, while the week on 'virtual' work would involve a study of how AI is expected to change the nature of healthcare delivery in future. The 'futures' weeks will involve imagined case studies, some of them devised by you and your fellow students.

This module will involve guest lectures from professionals in relevant industries, who would offer advice on next steps and practical approaches to career planning and development.



In Year 3 you will also undertake two year-long modules that will relate to each other, and each of which will respond to the question you have designed to structure your studies in this year:

# INDIVIDUAL RESEARCH PROJECT

You will design and pursue a research project relevant to your chosen question, which will complement and support the practical work you are undertaking in Change in Practice 3. The module emphasises individual study, supported by an appropriate supervisor, plus online skills development sessions.

The final assessment will either be presented in the form of a written dissertation of 8,000 words or in the form of an equivalent portfolio containing a creative response (e.g. a selection of poetry, a devised musical or theatrical performance, a design solution to a creative challenge on the BMC campus) or report suitable for a professional context (equivalent to 5,000 words) along with a 3,000-word reflective assignment relating either the response or report to relevant methodological issues.

You will have an opportunity to present your initial findings and proposed approach in an oral presentation approximately 10 weeks into the module.

# CHANGE IN PRACTICE 3 OR CHANGE IN THEORY 3

In this module you will undertake one of the following:

1. A sustained work placement to gain experience in an organisation relevant to your chosen field

2. A sustained civic engagement project, which may be developed collaboratively with an external organisation relevant to your chosen field

3. A supported and sustained new venture creation project, to design and test a product, service, project or business idea relevant to your chosen field, working with a mentor

4. An action research project (in Change in Theory 3), in which you diagnose an issue with an external partner, design a plan for change and reflect on wider contexts



# WHAT SORT OF QUESTION MIGHT YOU COME UP WITH IN YEAR 3?

Your question will develop out of your earlier studies, and will be unique to your interests. You will receive support to design, revise and refine it.

Some potential questions we imagined included:

How can the principles of agroecology be applied in different local contexts? A comparative study of family farms in Wales and Ghana.

Can we re-right the future? A creative-critical look at how creative writing can imagine and redefine human rights.

How can we model rapid decarbonisation, and persuade governments to act?

How can we feed the next generation?

Do we all need to be online?

Can technology save the world? A sceptic's enquiry.

How can Dominica face the twin challenges of decolonisation and climate change?

Can documentary film-making change the world?

# HOW IS THE DEGREE ASSESSED?

## A FLEXIBLE APPROACH

The approach to assessments allows you, where possible, to demonstrate your knowledge in a form that suits your learning style and future career aspirations; for example, by emphasising academic writing, project reporting and development, oral presentations or creative responses to a set task. You will be encouraged to build up a portfolio of assessments across the programme, so you can demonstrate a range of skills on completion.

## REAL-WORLD SKILLS

There is an emphasis throughout on authentic assessments, the application and evaluation of knowledge, and skills relevant to a rapidly-changing world of employment.

## CONTINUOUS ASSESSMENT

The degree is continuously assessed, meaning there is assessment in each module – rather than at the end of each year. There are no exams, although occasionally there will be a ‘timed’ assessment (e.g. an assessment that is set, and must be completed, within a defined period of time such as 1 week or 48 hours).

# WHAT CAN I READ IN ADVANCE TO PREPARE FOR THE DEGREE OR TO FIND OUT IF IT'S RIGHT FOR ME?

There is a wide range of reading involved in any degree, and you will be sent a reading list in advance of the programme starting. Particular reading lists may vary from year-to-year, but 1 or 2 of the following key works would be a good starting point:

Stella Cotterill, *Critical Thinking*

Amitav Ghosh, *The Nutmeg's Curse*

Jay Griffiths, *Why Rebel?*

Timothy Morton, *All Art is Ecological*

Andy Northedge,

*The Open University's Sciences Good Study Guide*

(now out of print but available secondhand online)

Robin Wall-Kimmerer, *Braiding Sweetgrass*



If you want to find out more about the approaches that have informed our College and degree, you may find the following texts by our staff or trustees of interest:

- Natalia Ernstmann and Arjen E.J. Wals, *'Locative Meaning-making: An Arts-based Approach to Learning for Sustainable Development'*
- Keri Facer, *'Beyond Business as Usual: Higher Education in the era of Climate Change'*
- Ben Rawlence, *'The Treeline'*
- Tom Sperlinger, Josie McLellan and Richard Pettigrew, *'Who are Universities for?'*

If you are interested in studying on the degree, and would like to find out more, our [Discovery Days](#) may be of interest. Keep an eye on the events page on our website!





For further information on our degree and how to apply,  
scan the QR code

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