

UCL Arts and Sciences (BASc) Course Selection for Affiliates

BASc affiliates must take a minimum number of courses that are offered by the Arts and Sciences Department. These numbers are outlined below and vary depending on the duration of study. The courses listed on this document are all considered to be Arts and Sciences courses. BASc affiliates can supplement these choices with courses from other academic departments at UCL.

Affiliates from other departments are also welcome to join Arts and Sciences courses.

BASc affiliates staying for one term will take a total of 60 credits which must include a minimum of:

- 1 BASc- coded module (coded BASCXXXX) (all 15 UCL credits each, equivalent to 7.5 ECTS credits)
 Plus
- At least 1 other module from this document
- The other 30 credits can be any modules from this document or discipline-specific modules from other departments

BASc affiliates staying for one academic year will take a total of 120 credits which must include a minimum of:

- 2 BASc- coded modules (coded BASCXXXX) (all 15 UCL credits each, equivalent to 7.5 ECTS credits)
 Plus
- At least 1 other module from this document
- The other 75 credits can be any modules from this document or discipline-specific modules from other departments

Please note that language courses offered by the Centre for Languages & International Education (CLIE) cannot be taken as part of your Arts and Sciences selection.

Arts and Sciences Modules:

- 1. BASC0001 Approaches to Knowledge: Introduction to Interdisciplinarity
- 2. BASC0002 Interdisciplinary Research Methods
- 3. BASC0003 Quantitative Methods and Mathematical Thinking
- 4. BASC0004 Object Lessons: Communicating Knowledge through Collections
- 5. BASC0005 Quantitative Methods 2: Data Science and Visualisation
- 6. BASC0006 Qualitative Thinking: Research Methods in Cultural Analysis
- 7. BASC0007- Creative Writing
- 8. BASC0008 Science Meets Religion in the Global Community
- 9. BASC0010 Understanding Cities and their Spatial Cultures
- 10. BASC0011 Migration and Health
- 11. BASC0015 Psychology in the Real World
- 12. BASC0017 Interdisciplinary Game Theory
- 13. BASC0018 Urban Inequalities and Global Development
- 14. BASC0020 Art and Interdisciplinarity: Measuring the World
- 15. BASC0022 Interactions of Music and Science
- 16. BASC0026 Advanced Creative Writing
- 17. BASC0028 Sustainable Energy
- 18. BASC0032 Critical Race Theory
- 19. BASC0033 Information through the Ages
- 20. BASC0038 Algorithms, Logic and Structure
- 21. BASC0039 Disability, Chronic Illness and Neurodivergence in Contemporary Society
- 22. BASC0040 Logic, Computation and Language Theory
- 23. BASC0041 Introduction into Politics: Key Concepts and Texts
- 24. BASC0042 Race, Gender and Feminism
- 25. BASC0045 Approaches to Global Politics
- 26. BASC0046 Politics of Infrastructure
- 27. BASC0047 Machine Reasoning and Expert Systems
- 28. BASC0048 Computers and Humans
- 29. BASC0049 Art and Interdisciplinarity 2
- 30. BASC0055 The Art and Science of Public Health
- 31. BASC0056 Quantitative Methods 3: Models and Inference
- 32. BASC0079 Environmental Change and Disease
- 33. BASC0080 Computer Simulations in Science and Engineering

Arts and Sciences Pathway Modules:

The following courses do not have a BASc prefix but can be considered Arts and Sciences courses as they have been written specifically for BASc students. These modules do not form part of the BASc-coded module requirement BASc Affiliates must fulfil. Each of the modules listed below are worth 15 credits.

- 1. ANTH0083 Experimental and Interactive Storytelling Form and Narrative
- 2. ANTH0084 Documentary Radio A Practice-Based Introduction
- 3. ANTH0085 Documentary Film Making Intermediate Practical Skills
- 4. ANTH0205 Interactive Factual Narratives
- 5. BARC0171 Architectural Investigation & Representation
- 6. BENG0026 Tech Journalism: Analysis and Communication in Engineering and Technology

- 7. <u>BENG0027 Advanced Tech Journalism: Advanced Analysis and Communication in Engineering and</u> <u>Technology</u>
- 8. <u>CLAS0146 Emotions in the Ancient World</u>
- 9. ENGF0014 Engineering Thinking I
- 10. ENGL0005 Introduction to English Literature
- 11. <u>MATH0012 Mathematical Methods for Arts and Sciences</u> only open to Affiliates at UCL for the whole academic year
- 12. SSFA0034 Methodologies of Drawing

Arts and Sciences Modules:

BASC0001 - Approaches to Knowledge: Introduction to Interdisciplinarity

Availability: Term 1 Module level: Level 4

This course focuses on the role of interdisciplinarity in breaking down old boundaries of knowledge and its role in creating new ways of thinking about knowledge. You will study the history of knowledge, how it came to be divided into disciplines and what is happening to disciplines today under pressure from the web and the knowledge revolution. You will also study Superconcepts which bridge older disciplines in order to unify areas of thought and to create productive new links.

Further information: <u>https://www.ucl.ac.uk/module-catalogue/modules/approaches-to-knowledge-introduction-to-interdisciplinarity-BASC0001</u>

BASC0002 - Interdisciplinary Research Methods

Availability: Term 2 Module level: Level 4

A great deal of research in politics, sociology, journalism, health etc. depends on qualitative techniques. This course teaches you how to produce reliable data using questionnaire and survey design. You will practise interview techniques on UCL academic staff and make video diaries of your reflections. Working in groups on an interdisciplinary project, you will learn ethnography and project management techniques.

Further information: <u>https://www.ucl.ac.uk/module-catalogue/modules/interdisciplinary-research-methods-</u> BASC0002

BASC0003 - Quantitative Methods and Mathematical Thinking

Availability: Term 2 Module level: Level 4

Quantitative methods are essential in almost every job and every walk of life. You will learn how to understand, analyse and resolve complex problems using a range of quantitative techniques. In an era of Big Data and algorithms, some understanding of the science and techniques behind these ideas is necessary for engagement with the modern world. In this course you will tackle estimation problems, learn coding with Python, explore statistics and game theory.

Further information: <u>https://www.ucl.ac.uk/module-catalogue/modules/quantitative-methods-and-</u> mathematical-thinking-BASC0003

BASC0004 - Object Lessons: Communicating Knowledge through Collections

Availability: Term 2

Working with objects from UCL's unique collections in the Grant Museum of Zoology, the Petrie Museum of Egyptian Archaeology, and Art Collections, you will and examining them from interdisciplinary perspectives, build your own virtual exhibition. Themes explored in lectures and practical sessions include: the role of materiality in culture and human cognition, scientific approaches to the analysis of materials, the social and economic contexts of manufacturing and trade, approaches to studying the aesthetic qualities of artefacts, exhibition design, developing virtual media and web content, researching collections, principles of curation, and ethics and digital communication.

Further information: <u>https://www.ucl.ac.uk/module-catalogue/modules/object-lessons-communicating-knowledge-through-collections-BASC0004</u>

BASC0005 - Quantitative Methods 2: Data Science and Visualisation

Availability:	Term 1
Module level:	Level 5
Prerequisite:	BASC0003 or similar module from your home university

This new course is strongly complementary to the first year BASc Quantitative Methods course, which builds modelling approaches around real-world questions. Here, we put society under a data-driven lens in an evidence-based approach to understanding and explaining the world.

Further information: <u>https://www.ucl.ac.uk/module-catalogue/modules/quantitative-methods-2-data-science-and-visualisation-BASC0005</u>

BASC0006 - Qualitative Thinking: Research Methods in Cultural Analysis

Availability: Term 2

Module level: Level 5

In this course, you will take a broad look at qualitative thinking, value judgements and subjective thinking. Among the themes are aesthetics, gifts, subjective experience and Bourdieu's idea of cultural capital. You will consider questions such as, why are some works of art considered more 'valuable' than others? How has the meaning of forms of work changed as a result of social and technological transformations since the industrial revolution? You will also consider qualitative judgments in science and engineering: qualities such as beauty, social effectiveness and cultural appropriateness are often decisive in engineering and technology decisions.

Further information: <u>https://www.ucl.ac.uk/module-catalogue/modules/qualitative-thinking-research-methods-in-cultural-analysis-BASC0006</u>

BASC0007- Creative Writing

Availability: Term 1 or Term 2

Module level: Level 5

Weekly lecture and workshop-seminar sessions will engage students in identifying and exploring the basic principles of successfully writing and reading prose fiction, poetry and creative non-fiction. Class discussion time will be given over to topics such as dialogue, character development, point of view, and structure. A reading list of contemporary prose fiction, poetry and creative non-fiction texts will be used as the basis for lectures and as example technique texts and as the springboard for in-depth critical analysis. During workshop-seminars, students will engage in peer assessment, providing oral and written critiques of classmates' creative writing (submitted on a rotating basis). Weekly tutorials will also be provided to allow for further detailed, personal critique and ongoing development of an individual student's creative writing and practice.

Students will also work as part of an editorial team, alongside the module tutor, to produce a group publication, with each student taking on and learning about specific roles in the editorial and publishing processes. This will result in a group publication featuring creative writing work by all group members.

Please note places on BASC0007 are limited and interested students must submit a small portfolio of creative writing to be considered. Please refer to the document titled "Module requirements - affiliates 2024-25" for details of the portfolio requirements.

Further information: https://www.ucl.ac.uk/module-catalogue/modules/creative-writing-BASC0007

BASC0008 - Science Meets Religion in the Global Community

Availability: Term 1 Module level: Level 5

In this course, you will study the relationship between science, religion and progress. Topics include the Church and the Copernican Revolution; Descartes, Hobbes and Newton; catholic and protestant science throughout Europe; science and religion in the ancient world, in Islam and China; the role of Christianity in Europe's "scientific revolution" of the seventeenth century; Darwin and Evolution; cosmology and religion; and Scientism and Militant Atheism.

Further information: <u>https://www.ucl.ac.uk/module-catalogue/modules/science-meets-religion-in-the-global-</u> <u>community-BASC0008</u>

BASC0010 - Understanding Cities and their Spatial Cultures

Availability: Term 2 Module level: Level 5

In this course, you will consider the broader implications of life in cities from historical and contemporary perspectives while looking ahead to a range of possible urban futures. The course is structured around three distinctive modes: 'networked people', 'networked cities' and 'global networks' that approximate to different network scales at which urban questions can be approached. It will link well with other modules with a broad built environment or material culture perspective.

Further information: <u>https://www.ucl.ac.uk/module-catalogue/modules/understanding-cities-and-their-spatial-</u> <u>cultures-BASC0010</u>

BASC0011 - Migration and Health

Availability: Term 1

In this course, you will analyse the interplay between migration and health, i.e. the physical, mental and social wellbeing of migrants. The ability of a migrant to integrate into a host society is based upon combined mental, physical, cultural, and social well-being. Absence of physical ill-health is not by itself sufficient for successful integration in a host society. However, the structural inequalities experienced by migrants have a significant impact on overall health and well-being.

Further information: https://www.ucl.ac.uk/module-catalogue/modules/migration-and-health-BASC0011

BASC0015 - Psychology in the Real World

Availability: Term 1 Module level: Level 5

This course takes an interdisciplinary view of psychology and sets leading experimental and theoretical results within real-world contexts. The aim of the course is to introduce students to the application of psychology in the real world and the consequences of misunderstandings in the public sphere as opposed to the resolution of problems in the laboratory. Students will be introduced to the use of psychology in business and industry, sport, public policy, education, the media and other areas of the real world. They will learn the difference between experimental aims and the public use of experimental data and to appreciate the challenges of how to communicate complex neuro-scientific data to the public.

Further information: https://www.ucl.ac.uk/module-catalogue/modules/psychology-in-the-real-world-BASC0015

BASC0017 - Interdisciplinary Game Theory

Availability:	Term 2
Module level:	Level 5
Prerequisite:	BASC0003 or an equivalent basic calculus and probability course from your home university

Game theory is a mathematical theory of interaction, which is used to predict future outcomes. This module – an interdisciplinary introduction to game theory - is a bridge between the world of mathematics and science and the world of the humanities and the social and historical sciences. Students are introduced to game theory as a descriptive tool that is not bound by the topics of any single discipline. The power of game theory as a descriptive theory has historically been enhanced by various disciplines, which over the years have contributed new solution concepts. The most influential discoveries made in philosophy, politics, economics, finance, war studies, biology, psychology, law and history will be discussed.

Further information: https://www.ucl.ac.uk/module-catalogue/modules/interdisciplinary-game-theory-BASC0017

BASC0018 - Urban Inequalities and Global Development

Availability: Term 1 Module level: Level 5 This module aims to introduce students to conceptual and analytical tools to analyse the nature of inequalities in the Global South, and the role of development practitioners in bringing about transformative change.

Part one will introduce the conceptual framework of the module, and will focus on introducing the key terminology and tensions of global processes which are influencing urban change in the Global South. Part two will explore the role of the development practitioner, supporting students to reflect upon their own ethics and methods of engagement. Part three will adopt a case study approach to explore different strategies which have been used by local communities and development practitioners and organisations to address inequalities, and the strengths and challenges of these.

Further information: <u>https://www.ucl.ac.uk/module-catalogue/modules/urban-inequalities-and-global-development-BASC0018</u>

BASC0020 - Art and Interdisciplinarity: Measuring the World

Availability: Term 1 Module level: Level 5

This module will provide an experience in interdisciplinary thinking, but one strongly influenced by the perspective and production of the course leader, the artist Alfonso Borragán. It will call on a wide-ranging set of materials from art, anthropology, architecture, philosophy, biology, physics, mathematics, neurology and geology and introduce the students to the work of some thinkers and practitioners working in those areas. Further, it will visit a diversity of experts on different fields to contribute and experiment with the aforementioned materials. To sum up, the module will be enriched with the projects and interests of each student contributing to the interdisciplinary dimension of the module.

Further information: <u>https://www.ucl.ac.uk/module-catalogue/modules/art-and-interdisciplinarity-measuring-the-world-BASC0020</u>

BASC0022 - Interactions of Music and Science

Availability:	Term 1
Module level:	Level 5

This module has historically been popular. If you try to register on this module, we would advise exploring additional options, just in case.

This module will introduce students to the multidisciplinary nature of music by offering a critical introduction to a plethora of evidence, both from contemporary research and practice. Students will be enabled to witness how music celebrates artistic expression and experience but also scientific enquiry and discourse, as notions that symbiotically form a unique plateau, and not as distinct pillars (which, somewhat paradoxically, troubles educational policy).

Students will have the opportunity to become introduced to literature and evidence relating to the origins of music, the ontology and epistemology of music, musical development and education, music perception and cognition, sociological perspectives, and also the role of science and technology in, with and through music.

Further information: <u>https://www.ucl.ac.uk/module-catalogue/modules/interactions-of-music-and-science-BASC0022</u>

BASC0026 - Advanced Creative Writing

Availability:	Term 2
Module level:	Level 6
Prerequisite:	BASC0007 or submission of a small portfolio of writing

Weekly lecture and workshop-seminar sessions and tutorials will engage students in identifying and exploring the specific genre of Creative Non-fiction, with the goal of using such literary works as foundations for an examination of advanced principles in producing successful communicative writing (with an emphasis on the "creative" element). The ten week module will be based around an exploration of sub-genres of the form, with class discussion time given over to considering the personal essay and memoir; literary journalism ("new journalism"); observational/descriptive essays and travel writing, for example. A reading list of creative non-fiction texts will be used as the basis for lectures and example technique texts and as the springboard for in-depth critical analyses.

During workshop-seminars, students will engage in peer assessment, providing oral and written critiques of classmates' creative nonfiction writing (submitted on a rotating weekly basis). Weekly one to one tutorials will also be provided to enable ongoing tutor feedback and allow for further detailed, personal critique and ongoing development of an individual student's creative writing and practice.

Students will produce, as part of this module, an extended piece of creative nonfiction writing; an in-depth literary critical analysis of a text selected from the reading list; a journal/portfolio chronicling their weekly class critiques, writing exercises and class discussions. They will also work as part of an editorial team, alongside the module tutor, to produce a group publication featuring their creative nonfiction writing.

Please note interested students who have not taken BASC0007 must submit a small portfolio of creative writing to the module leader to be considered. Please refer to the document titled "Module requirements - affiliates 2024-25" for details of the portfolio requirements.

Further information: https://www.ucl.ac.uk/module-catalogue/modules/advanced-creative-writing-BASC0026

BASC0028 – Sustainable Energy

Availability: Term 1 Module level: Level 5

Energy provision and use faces a range of unprecedented challenges – from the global through national and local scales – including decarbonisation and other environmental goals, security of supply, equity and access to energy, the role of competitive markets, and resource depletion. You will study the scope and challenges of energy supply and demand, key concepts in the science of energy, potential technological options, the trade-offs in market design, the role of analytical tools, and the economic and social drivers of energy use.

Further information: https://www.ucl.ac.uk/module-catalogue/modules/sustainable-energy-BASC0028

BASC0032 - Critical Race Theory

Availability: Term 2 Module level: Level 5 This module offers an introduction to the field of Critical Race Theory (CRT). Tracing the development of CRT out of a critique of Critical Legal Studies in the USA, we will explore the philosophical underpinnings of CRT, its critiques of ahistoricism, meritocracy and 'colourblind' policy. We will examine how the field itself has internationalised and engaged with other fields of study such as education, women's studies, film studies and literary criticism and how it has been subjected to academic criticism from within and without the field, most notably by Marxist scholars and liberal multiculturalists.

Further information: https://www.ucl.ac.uk/module-catalogue/modules/critical-race-theory-BASC0032

BASC0033 - Information through the Ages

Availability: Term 1 Module level: Level 5

This module explores the concept of information and its relation to data and knowledge, taking an historical perspective through examining the past, present and future of associated institutional repositories and collections (libraries, archives, museums, galleries, data vaults) as well as the different historical forms of information sources (moving from the papyrus and codex up to contemporary forms such as the database). The module engages students in a critical, interdisciplinary examination of the role institutions and collections play in validating and verifying information and information sources, and scrutinises the interplay between audiences, politics, aesthetics, material forms and the socio-economic, technological and socio-cultural elements in which information is situated.

Further information: https://www.ucl.ac.uk/module-catalogue/modules/information-through-the-ages-BASC0033

BASC0038 - Algorithms, Logic and Structure

Availability:	Term 2
Module level:	Level 4
Prerequisite: university	Logic, Computation and Language Theory or COMP0003 or similar module from your home

This BASc course complements the new module BASC0040 (Logic, Computation and Language Theory) to provide students with the skills required to access second year courses involving computer science or similar subjects.

The courses will allow students to become confident with a range of data structures and algorithms and able to apply them in a realistic situations. The course will provide the tools required to analyse a problem and decide which algorithms or algorithmic techniques to apply to solve it. The course will involve practical programming and encourage a thoughtful approach to analysis and design problems.

Further information: <u>https://www.ucl.ac.uk/module-catalogue/modules/algorithms-logic-and-structures-</u> BASC0038

BASC0039 - Disability, Chronic Illness and Neurodivergence in Contemporary Society

Availability: Term 2

Module level: Level 5

Despite recent societal changes, people with disabilities, chronic illnesses and/or neurodivergence are still underrepresented in society, popular culture, medical and academic disciplines. Lack of understanding of and intellectual engagement with disabilities, chronic illnesses and/or neurodivergence reinforce stereotypes and barriers. In this module, students will take an autoethnographic, reflexive approach to exploring disabilities, chronic illnesses and neurodivergence in society in general, and more specifically in the contexts of the studies of film, media and literature; law; geography and architecture; business, enterprise and economy; and disability studies, medicine and sociology.

Further information: <u>https://www.ucl.ac.uk/module-catalogue/modules/disability-chronic-illness-and-neurodivergence-in-the-contemporary-society-BASC0039</u>

BASC0040 - Logic, Computation and Language Theory

Availability: Term 1 Module level: Level 4

This BASc course forms an introduction to the theoretical concepts required for Year 2 computer science courses. However, the course also provides a stand-alone introduction for students interested in the theory of computation and its links with logic and language theory. The first part of the course will focus on mathematical logic and the second part will address the fundamentals of computation, automata and language theory.

Further information: <u>https://www.ucl.ac.uk/module-catalogue/modules/logic-computation-and-language-theory-</u> BASC0040

BASC0041 - Introduction into Politics: Key Concepts and Texts

Availability:	Term 2
Module level:	Level 4

On this module, students will get to grips with the some of the most basic and most important questions that political thinkers have struggled with over the ages, including:

- What does it mean to come together in a political community?
- What is the nature of power?
- What is the relationship between politics and violence and war? Between politics and morality?
- How does politics balance the claims of order with the claims of liberty?
- How does politics exclude and include? How does politics relate to gender and race?
- And how can we use politics to change the world?

Through close engagement with core texts from Aristotle and Plato, via Machiavelli, Hobbes, Rousseau, Schmitt, Arendt, Fanon, Havel and Foucault, to the present day, this module will help students come to understand the key coordinates of political experience and political activity.

Further information: <u>https://www.ucl.ac.uk/module-catalogue/modules/introduction-into-politics-key-concepts-and-texts-BASC0041</u>

BASC0042 - Race, Gender and Feminism

Availability:	Term 1
Module level:	Level 5

This module offers an introduction and analytical approach to Race and Gender and considers what work the concepts of gender and race might do for us in a critical - specifically feminist and anti-racist struggle. The module covers topics concerned with:

- the need to identify and explain persistent social inequalities between male and female, between people of different colours; this includes identifying how social forces under the guise of biological forces work to perpetuate such inequalities
- the effects of interlocking oppressions (e.g. Crenshaw (1993) The intersectionality of race, gender, class)
- how gender and race are implicated in a broad range of social phenomena beyond the sexual and racial difference
- accounts of situated lived experience of women as effective tools in the fight against injustice

Further information: https://www.ucl.ac.uk/module-catalogue/modules/race-gender-and-feminism-BASC0042

BASC0045 - Approaches to Global Politics

Availability: Term 1 Module level: Level 5

This module starts off with a tailored overview of mainstream and critical international relations theory, before applying these to real-world events. At the core of the module is a question of how globalisation has affected the role of states in global politics, particularly against the backdrop of populist nationalism and ever-growing global challenges.

The first weeks introduce main theoretical streams by discussing whether international relations are defined by anarchy or hierarchy. Once equipped with basic conceptual tools, students will focus on globalisation as a driver of global (and national) politics, as well as critically evaluating the emancipatory potential of globalisation and the liberal international order. The second half of the course then focuses on five big topics in contemporary international politics: security, development, climate change, health governance and the future shape of global politics.

Further information: https://www.ucl.ac.uk/module-catalogue/modules/approaches-to-global-politics-BASC0045

BASC0046 – Politics of Infrastructure

Availability: Term 2

Module level: Level 6

This is an interdisciplinary module tackling questions of interest to political science, geography, environment, engineering and anthropology. Infrastructure spans time and space, fills our daily lives but remains mostly invisible, especially when it works well. Our world is increasingly bound by transnational logistical networks and complex urban infrastructures, but what are the issues and debates surrounding the politics of infrastructure? Do all infrastructures bind, or do they also entrench segregation and dispossession?

The course starts with a look at theories of infrastructure and its relation to power before turning to in-depth case study driven work on roads, shipping and logistics, water and sanitation, failed infrastructures, and even the notion of 'evil' infrastructure. Students will undertake an interdisciplinary group report analysing a megaproject and showcasing their analytical skills (quantitative or qualitative approaches both encouraged). Each of the thematic units also develops skills and knowledge related to project management, public procurement and tendering,

infrastructural financing in the developing world, decarbonisation, debates on surveillance, as well as the geopolitical aspect of infrastructure seen in policies such as China's Belt and Road Initiative.

Further information: <u>https://www.ucl.ac.uk/module-catalogue/modules/power-politics-and-infrastructure-BASC0046</u>

BASC0047 - Machine Reasoning and Expert Systems

Availability: Term 1 Module level: Level 5

This BASc module covers the basic principles of machine reasoning, exploring the foundations of the rapidly developing field of artificial intelligence, and outlining the mathematical techniques used in both knowledge representation and future artificial intelligence modules.

The first part of the module will introduce the mathematical and logical theories used in the development of machine reasoning and knowledge representation. The students will learn the notions of agent based systems (e.g., intelligent agents, problem-solving agents, knowledge-based agents), the syntax, semantics and use of first order logic in knowledge representation and inference systems. Modal logics for AI will be briefly presented as an overview on more advanced topics in knowledge representation.

The second part of the module will focus on learning and reasoning under uncertainty by using probabilistic techniques (e.g., Naïve Bayes models and Bayesian networks, introductory hidden Markov models) as an introduction to expert systems and machine learning.

Once equipped with the main technical and theoretical tools, the students will be presented with a selection of different applications of machine reasoning, e.g., natural language processing, machine vision and robotics, to create a point of contact with real-world examples and future, more advanced AI modules.

Further information: <u>https://www.ucl.ac.uk/module-catalogue/modules/machine-reasoning-and-expert-systems-BASC0047</u>

BASC0048 - Computers and Humans

Availability: Term 2 Module level: Level 6

The module aims at providing an overview on the relationships between computing-systems and human beings, from a technological perspective.

The first weeks introduce the main theoretical and technical concepts of human computer interaction (HCI), such as cognitive aspects of visual design, interaction design, persuasion, and user experience. This is fundamental to understand the role of both user and designers of computer interfaces. Once equipped with the basic theoretical tools, the lectures will involve critical discussions around user-centred design issues. The students will analyse the risks and possibilities associated to computing interfaces, wearable technologies and data visualisation.

The second part of the module will focus on AI and algorithms, with a broad introduction to the main techniques and challenges involved, e.g., machine learning and data science. In this part as well, once equipped with the basic conceptual tools, students will focus on the ethical challenges of modern AI systems, with a discussion on the concepts of accountability and trust (e.g., should we trust news in a Deepfake world? Should we trust autonomous cars?).

BASC0049 - Art and Interdisciplinarity 2

Availability: Term 1

Module Level: Level 6

This course offers you the opportunity to engage with art thinking and art practice. It proposes a collective and experimental space based on the individual projects of each student. This course strengthens an analytic and experiential perspective regarding art practice as a method of research and its potential to understand our relation with the world from different disciplines and practices.

Students are invited to consider Science and Art as related systems to interpret the world and to speculate about ways of di-measure reality (incommensurability). It will provide the students with a wide range of approaches into art research and art practice and subjective approaches to scientific research and practice to expand the variety of ways of thinking. It aims to encourage critical awareness and individual ways of looking at, and understanding the world through making.

Further information: https://www.ucl.ac.uk/module-catalogue/modules/art-and-interdisciplinarity-2-BASC0049

BASC0055 - The Art and Science of Public Health

Availability: Term 2 Module Level: Level 6

This module will provide an overview of new thinking on public health, which integrates the arts and sciences to address current health and social care issues. Topics will include an initial lecture on *"The Art and Science of Public Health"* and then specific lectures focusing on the application of arts and scientific approaches to public health, for example, public health systems and structures, behavior change theories, arts in public health communication, public health interventions for noncommunicable diseases, creative approaches in public health, arts in mental health promotion, public health inequalities, public health in the workplace, participatory global public health, co-designing health architecture, public health and the environment.

Further information: <u>https://www.ucl.ac.uk/module-catalogue/modules/the-art-and-science-of-public-health-BASC0055</u>

BASC0056 - Quantitative Methods 3: Models and Inference

Availability: Term 1

Module Level: Level 6

This module will explore the development of regression models and contextualise the methodological development in their social and cultural context, using applications across a wide range of disciplines such as astronomy, biology, geography, social science, epidemiology, environmental science, artificial intelligence so on.

Further information: <u>https://www.ucl.ac.uk/module-catalogue/modules/quantitative-methods-3-models-and-inference-BASC0056</u>

BASC0079 - Environmental Change and Disease

Availability: Term 1 Module Level: Level 4

This foundational module will explore the interdependencies between natural systems and human disease in a time of rapid environmental change. Acknowledging diverse and changing perspectives on health and the environment across history and cultures, students will be introduced to emerging concepts and issues in this field, fundamental approaches to assess evidence for causal relationships between environment and disease as well as begin to develop an understanding of the complex socioecological systems within which remedial action can be taken.

Further information: <u>https://www.ucl.ac.uk/module-catalogue/modules/environmental-change-and-disease-</u> BASC0079

BASC0080 - Computer Simulations in Science and Engineering

Availability: Term 2 Module Level: Level 5

Computer simulations have become indispensable in numerous science and engineering disciplines, both in industry and academia. The list of disciplines that make extensive use of computer simulations has grown to include materials science, biology, astrophysics, economics, and many others. It has become one of the most quantitative and reproducible methods that has been used to interrogate countless empirical and interdisciplinary questions from nano to macro scales in a fast- evolving scientific and social environment. This module will explore the development of simulation methods and scientific software packages that can be used on different computational infrastructures, from personal workstations to high performance computing clusters and distributed network, such as blockchain, using applications across a wide range of disciplines, for examples, chemistry, astrophysics, biology, soft matter, social physics and econophysics.

Further information: <u>https://www.ucl.ac.uk/module-catalogue/modules/computer-simulations-in-science-and-engineering-BASC0080</u>

Arts and Sciences Pathway Modules

The following courses do not have a BASc prefix but can be considered Arts and Sciences courses as they have been written specifically for BASc students. These modules do not form part of the BASc-coded module requirement BASc Affiliates must fulfil. Each of the modules listed below are worth 15 credits.

ANTH0083 - Experimental and Interactive Storytelling – Form and Narrative

Availability: Term 2

Module Level: Level 6

This course looks at relationship between experimental filmmaking, documentary and interactive technology, in a rapidly expanding mediascape. This course will explore the history of non-linear storytelling approaches, within the realm of film, video, digital, interactive media and VR, guiding the students through a path that will bring them to design a first experimental interactive project of their own.

Further information: <u>https://www.ucl.ac.uk/module-catalogue/modules/experimental-cinema-and-new-media-</u> form-and-narrative-ANTH0083

ANTH0084 - Documentary Radio – A Practice-Based Introduction

Availability: Term 1 Module Level: Level 6

Audio is becoming an increasingly attractive way to tell stories that might be impossible to tell in other art forms. The international rise of the podcast in recent years, galvanised by the release hugely successful Serial Podcast in 2014, has brought a new, younger audience to audio documentary. Independent organisations such as Audible are creating audio documentary content to keep up with the demand - 'The Days that Changed the World' series being the most recent. Research based organisations such as The Tavistock Institute of Human Relations see the benefit of using audio in their research as it gives anonymity to participants while simultaneously creating a much more engaging way of presenting research. Creatives are enjoying the capability of working with a broad range of stories as the form allows so much more freedom and access.

Further information: <u>https://www.ucl.ac.uk/module-catalogue/modules/documentary-radio-a-practice-based-introduction-ANTH0084</u>

ANTH0085 - Documentary Film Making – Intermediate Practical Skills

Availability: Term 2 Module Level: Level 6

The course will develop your critical skills of film analysis through the practical application and experience of producing, shooting, editing a short film and by analysing key documentaries and their theoretical underpinnings. The course responds to the growing wish among UCL students to use digital media as a tool in research. This course contributes to students' intellectual formation by opening new ways of reading and understanding visual ethnographies achieved through a practical appreciation of the craft of documentary filmmaking. This course contributes to interdisciplinary teaching of the practice of using film to ask and probe research questions and shows how film can become an integral part of a research process. Students will gain an overview of the language of observational filmmaking.

Further information: <u>https://www.ucl.ac.uk/module-catalogue/modules/documentary-film-making-intermediate-practical-skills-ANTH0085</u>

ANTH0205 - Interactive Factual Narratives

Availability:	Term 1
Module Level:	Level 5

This module will provide you with a theoretical and historical overview of the field of contemporary digital interactive factual (non-fiction) narratives.

It is a module for storytellers from all backgrounds that want to use digital platforms (web, mobile, tablet, apps, VR, AR, MR, AI, immersive theatre...) to speak about our "shared world" by innovating and involving the user/inter-actor within their story world. Whether you come from journalism, documentary, film, ethnography, social communication

or any other field, the challenge of creating for digital platforms is to move from a story-telling to a storyexperiencing approach. This is the creative journey that the module proposes: to delve into the history of interactive narratives since the invention of the World Wide Web, learn about its current genres and platforms and be ready to navigate future trends in immersive media.

Further information: https://www.ucl.ac.uk/module-catalogue/modules/interactive-factual-narratives-ANTH0205

BARC0171 - Architectural Investigation & Representation

Availability: Term 1

Module Level: Level 4

Communication is critical to the production of architecture: between designers, clients, builders, manufacturers, stakeholders and the public. The AIS programme promotes a broad conception of architecture and a diverse interrogation of the making, inhabitation and interpretation of the built environment. In these interdisciplinary dialogues, facility with a wide range of visual communication skills is critical. Please refer to the document titled "Module requirements - affiliates 2024-25" for details of the portfolio requirements.

Further information: <u>https://www.ucl.ac.uk/module-catalogue/modules/architectural-investigation-representation-BARC0171</u>

BENG0026 - Tech Journalism: Analysis and Communication in Engineering and Technology

Availability: Term 2 Module Level: Level 5

This module will focus on giving you two sets of skills: the ability to analyse trends in science, engineering and technology research and development, and to communicate these trends persuasively to a particular audience, whether general, technical, or expert. Specifically, you will learn how to put R&D projects into context, so determining their significance; identify emerging research trends by looking at journals and conference programmes and/or proceedings; and consider the impact of people, policy, and economics on engineering and technology.

Further information: <u>https://www.ucl.ac.uk/module-catalogue/modules/tech-journalism-analysis-and-communication-in-engineering-and-technology-BENG0026</u>

BENG0027 - Advanced Tech Journalism: Advanced Analysis and Communication in Engineering and Technology

Availability: Term 2 Module Level: Level 6

This module will focus on giving you two sets of skills: the ability to analyse trends in science, engineering and technology research and development, and to communicate these trends persuasively to a particular audience, whether general, technical, or expert. Specifically, you will learn how to put R&D projects into context, so determining their significance; identify emerging research trends by looking at journals and conference programmes

and/or proceedings; and consider the impact of people, policy, and economics on engineering and technology. As well as tuition, practice and detailed feedback on your writing and research, you will also have the opportunity to do interviews, attend conferences, and go on laboratory visits.

In addition, you will learn the invaluable skill of being able to constructively criticize, analyse, and edit the work of others. Specifically, you will learn how to identify holes in technical arguments, consider whether the level of jargon/explanation is appropriate for a stated purpose, and give clear feedback on the structure and language used.

Further information: <u>https://www.ucl.ac.uk/module-catalogue/modules/advanced-tech-journalism-advanced-analysis-and-communication-in-engineering-and-technology-BENG0027</u>

CLAS0146 - Emotions in the Ancient World

Availability: Term 2 Module Level: Level 4

This course is an exploration of the history of Greek and Roman ideas, which formed the modern world. In the first half of the term sessions will focus on Greek ideas like democracy, philosophy, hospitality, fair play, athletics, drama, eros and love, nemesis, psyche and how these ideas have been generated through specific Greek cultural systems or artistic modes of representation (literature, painting, sculpture, theatre). In the second half of the term we shall be concerned with Roman ideas and sessions will focus on ideas like fame, liberty, virtue, justice, epicureanism, stoicism, citizenship, republicanism, imperialism, public order and how they have been generated through specific Roman cultural systems or artistic modes of representation (literature, painting, sculpture, painting, sculpture, theatre). The sessions will then examine the relevance of these ideas to modern politics and society.

Further information: <u>https://www.ucl.ac.uk/module-catalogue/modules/emotions-in-the-ancient-world-</u> <u>CLAS0146</u>

ENGF0014 - Engineering Thinking I

Availability:	Term 2
Module Level:	Level 4

Engineering Thinking will give you an opportunity to explore and identify why the engineering profession is essential to modern society. You will come to know how engineers draw on collective professional experience, scientific theory, data and personal creativity to solve problems whilst devising models of physical and technological systems to understand such problems before testing and designing solutions through informed decision making. A foremost consideration for all engineers when working on projects is the health and safety of the public and sustainability. You will learn how to integrate such requirements with the needs set out by the client and other stakeholders to create a successful engineering design solution.

This module provides a hands-on experience of engineering, including design, analysis, creative and critical thinking, and resilience (among others), in defining and solving a socio-technical problem. This is alongside a seminar series that will explore key concepts aligned with how engineers think and are successful in their professional practice. You will work in teams to design and build a new system with the aim of assisting the UCL Sustainability team in meeting their targets set out in their UCL Sustainability Strategy.

Further information: https://www.ucl.ac.uk/module-catalogue/modules/engineering-thinking-i-ENGF0014

ENGL0005 - Introduction to English Literature

Availability:	Term 2
Module Level:	Level 4
Prerequisite:	Equivalent mark of A in A-level English literature in your high school qualification

This course offers an introduction to the full sweep of English literature from the Anglo-Saxon period to the present day. It allows students to sample works from different periods while also showing how these works are connected together, over and across time, by continuing narrative, generic and thematic concerns.

Please note that places on ENGL0005 are limited and interested students must have a GPA of 3.4 and above and have experience of studying English Literature as part of their previous undergraduate studies.

Further information: <u>https://www.ucl.ac.uk/module-catalogue/modules/introduction-to-english-literature-</u> ENGL0005

MATH0012 - Mathematical Methods for Arts and Sciences – only open to Affiliates at UCL for the whole academic year

Availability: Term 1 Module Level: Level 4

This course is to bring students from a background of diverse A-level (and similar) syllabuses to a uniform level of confidence and competence in basic calculus, a subject which is of basic importance not only in most areas of mathematics, but also in science in general. It covers complex numbers, standard functions of a real variable, methods of integration and an introduction to ordinary differential equations, as well as introductions to partial differentiation and Fourier series.

Further information: <u>https://www.ucl.ac.uk/module-catalogue/modules/mathematical-methods-for-arts-and-</u> <u>sciences-MATH0012</u>

SSFA0034 - Methodologies of Drawing

Availability: Term 1 Module Level: Level 5

This course is aimed specifically at BASc students to help them learn through practice and for Slade students to consider drawing as a mode of thought. It examines a series of practices of drawing in Fine Art emphasizing the development of concepts of drawing.

Please note places on SSFA0034 are limited and interested students must submit a small portfolio of work to be considered. Please refer to the document titled "Module requirements - affiliates 2024-25" for details of the portfolio requirements.

Further information: https://www.ucl.ac.uk/slade/study/ssfa0034/