Programme Specification

Course record information

Name and level of final award	• Master of Science - Global Public Health with Data Science The award is Bologna FQ-EHEA second cycle degree or diploma compatible
Name and level of intermediate awards	• Postgraduate Diploma (Pg Dip) - Global Public Health with Data Science • Postgraduate Certificate (Pg Cert) - Global Public Health with Data Science
Awarding body/institution	University of Westminster
Teaching institution	University of Westminster
Status of awarding body/institution	Recognised Body
Location of delivery	Primary: Central London
Language of delivery and assessment	English
QAA subject benchmarking group(s)	
Professional statutory or regulatory body	
Westminster course title, mode of attendance and standard length	• Global Public Health with Data Science MSc, Full-time, September start - 1 year standard length • Global Public Health with Data Science MSc, Part-time day, September start - 2 years standard length
Valid for cohorts	From 2026/7

Admissions requirements

There are standard minimum entry requirements for all postgraduate courses. Students are advised to check the standard requirements for the most up-to-date information. For most courses a decision will be made on the basis of your application form alone. However, for some courses the selection process may include an interview to demonstrate your strengths in addition to any formal entry requirements. More information can be found here: https://www.westminster.ac.uk/courses/postgraduate/how-to-apply.

Aims of the programme

The aim of the course is to train the next generation of professionals in global public health with reference to health data science. The Global Public Health with Data Science course brings new insights to public health and the curriculum in a way that emphasises elements of health data science to aid decision making, advance evidence-based policies and drive strategies in combating diseases by analysing existing data on e.g. omics (genomics, transcriptomics, proteomics, metabolomics), health, lifestyle, and the environment.

Graduates from this programme will be able to both perform this analysis and implement health care decision making on the basis of that analysis. Health data science draws on the knowledge of health, life sciences, mathematics, statistics, epidemiology, and computational science. It connects these subjects to help, on one hand, improve the health of population globally and nationally, and on the other hand to better plan bespoke quality health services and cost-effective delivery of treatments.

The Global Public Health with Data Science course also aims to offer an opportunity for students to 1) investigate issues related to global public health and the global burden of infectious diseases and non-communicable diseases with reference to lower- middle- higher income regions of the world; 2) appraise, analyse and critically evaluate the underlying as well as the direct causes of diseases in both developed and developing countries and 3) develop expertise on epidemiology, health promotion, disease prevention, detection and management approaches. Overall global health security with reference to global equitable access to health and to global pandemic preparedness/response are essential learning materials delivered by the course. Components of health inequalities, health economics and healthcare systems provided around the word are core features covered in the course.

The course aim is for students to develop outstanding skills, knowledge, and application of knowledge in this discipline and upon graduation improve their job prospects nationally or/and internationally.

Employment and further study opportunities

Today's organisations need graduates with both good degrees and skills relevant to the workplace, i.e. career/employability skills. The University of Westminster is committed to developing employable graduates by ensuring that:

- Career development skills are embedded in all courses

- Opportunities for part-time work, placements and work-related learning activities are widely available to students

- Staff continue to widen and strengthen the University's links with employers in all sectors, involving them in curriculum design and encouraging their participation in other aspects of the University's career education and guidance provision

- Staff are provided with up-to-date data on labour market trends and employers' requirements, which will inform the service delivered to students.

Proficiency in global public health along with the core competencies of health data science, epidemiology, health economics, statistics, and diseases characteristics will ensure that students have appropriate skills to understand and capture the burden of disease and determinants of health in developing and developed countries from a big data analysis perspective. Graduates from this course could seek employment in public health, the allied health sector, clinical setting, the private, public, third and voluntary health sectors, government departments (such as Public Health England), UN health agencies, statutory bodies, health institutions (eg NHS) and the higher education sector. The MSc course equips students with insightful and rigorous research skills, tools and overall expertise in the discipline which will also allow them to progress further to MPhil/PhD studies.

In addition, the course is envisaged to train and equip students with quality and transferable skills employers are looking for, such as leadership, time management, communication and presentation, data analysis and interpretation, strategising and planning, generating ideas and solutions, decision making in complex situations, and independent learning to enhance continuing professional development (CPD).

What will you be expected to achieve?

Course learning outcomes

Learning outcomes are statements of what successful students have achieved as a result of learning.

These are threshold statements of achievement the learning outcomes broadly fall into four categories:

The overall knowledge and understanding you will gain from your course (KU)

Graduate attributes are characteristics that you will have developed during the duration of your course (GA)

Professional and personal practice learning outcomes are specific skills that you will be expected to have gained on successful completion of the course (PPP)

Cognitive Skills, are learning outcomes that help build conceptual understanding that is necessary to devise and sustain arguments, and/or to solve problems and comment on research.

Key transferable skills that you will be expected to have gained on successful completion of the course. (KTS)

Level 7 course learning outcomes: upon completion of Level 7 you will be able to:

- 01 Critically evaluate the role of surveillance performed by public health agencies in the prevention and control of infectious diseases and the methods employed to do this. (KU KTS SS CS)

- 02 Evaluate and critically analyze the strategies used to prevent and alleviate the burden of non communicable diseases (KU KTS CS)

- 03 Critically appraise the epidemiological studies used to measure, understand and manage non-communicable diseases and infectious diseases by developing competency in the use of statistical software's like SPSS and R for data analysis and inferential statistics. (KU PPP KTS SS CS)

- 04 Evaluate and critically appraise the principles and limitations of health promotion and behaviour change theories as well as the role of inequalities in achieving improved health outcomes. (KU PPP KTS SS CS)

- 05 Critically evaluate how health markets work in theory and how the assumptions of a perfect market are often violated in healthcare (KU KTS CS)

- 06 Critically analyse and develop competency on how the results of health economic evaluations can be used to inform an appropriate resource-allocation and decisions in healthcare resulting in equitable access and provision to all. (KU PPP KTS SS CS)

- 07 Critically evaluate the effectiveness of different health related computational methods to existing and future global health challenges in developed and developing countries and enabling equitable healthcare policy and provision. (KU SS CS)

- 08 Apply the knowledge of health data science for national and global health security and improvement of healthcare delivery (KU PPP KTS SS)

- 09 Analyse and critically evaluate key policies which have informed public health nationally and globally (KU KTS CS)

- 10 Organize and implement a project in an ethical and rigorous manner demonstrating adherence to the principles of research governance (KU PPP KTS SS CS)

How will you learn?

Learning methods

The course learning strategy emphasises encouragement of self-motivation and management, active-in-depth learning, and reflective self appraisal. It is expected that students will read broadly around the subjects introduced during the contact hours and using information made available in module handbook, specific reading list and/or on blackboard. It is envisaged, the learning methods will combine active on campus learning complemented with quality online learning.

The teaching team has extensive teaching experience validated by the UK professional body the Higher Education Academy and they do observe sensitivity in conveying learning materials to students who come from different backgrounds. The majority of teaching sessions are recorded (with some exceptions on the basis of pedagogical and/or data protection reasons) and accessible to all students in blackboard, giving learners the opportunity to regularly access these contents. Typically, a 20 credit module consists of 200 hours of student engagement and within these 200 hours, there will be scheduled contact time (onsite and online) and time where students are expected to spend on independent learning activities, including the completion of assessments. Extra workshops and drop-in sessions are regularly made available to enhance learning.

The School of Life Sciences is committed to the University of Westminster Equality, Diversity and Inclusion (EDI) policy with a local implementation based on three central elements:

- ***Our commitment*** *is to ensure an inclusive, safe and supportive learning, working and social environment which*

enables scientific research and teaching to flourish and encourages our future scientists to grow and realise their true potential.

- ***Our goal*** *is to empower all students and staff to critically reflect on their understanding and positionality, with respect to the wide-ranging global scientific perspectives (past and present); encouraging the open debate of differing points of view.*

- ***Our pledge*** *is to respect and value our diverse Life Sciences community (within and beyond the University of Westminster) and foster an equitable culture as we move forward in the field.*

These three elements inform and direct all our learning, teaching and research activities and have been central to our course design process as can be seen in the learning outcomes at course and module level. All staff and students in the school of Life Sciences are expected to embrace and respect these values. In keeping with the University of Westminster Policies and Strategies on equality, diversity and inclusion (EDI), the teaching and learning methods utlised will aim to create a diverse. safe and enabling environment which is equitable and inclusive. When and where appropriate, the teaching method draws attention to the different experiences and impact of science research, collection and use of data, as well as different perceptions and meanings attached to health practices across the globe and their relationship with 'Western' policies and practices. Students are encouraged to actively discuss issues related to EDI within interactive teaching sessions and workshops and assess the inequalities present in health care as well as the exclusion of certain populations in digital health platforms. Students will also be encouraged to reflect upon and provide solutions to mitigate against these issues of inequality and lack of inclusion.

Teaching methods

A variety of teaching methods and approaches are used throughout the MSc Global Public Health with Data Science course, including formal lectures, practical sessions, tutorials (student-centred learning activities), poster presentations and oral presentations. Some of these sessions will be delivered on-site using the classrooms and specialist teaching spaced (e.g. laboratories, computer suites) of the School of Life Sciences and others will be delivered online through the Blackboard Virtual Learning Environment (VLE). These combined teaching approaches aim to improve both students' knowledge in the field of public health as well as helping to develop their critical faculties through an experiential approach and in particular for this course, the application of data science to public health issues. In addition, the key communication skills required by any professional scientist are developed throughout the course.

Teaching methods are flexible and make use of a variety of media in technology enhanced teaching rooms with a fixed pc but with the option for lecturers and students to use their own devices as well for interactive activities. All rooms are also equipped with visualisers and whiteboards to allow a variety of interactive teaching styles. The University of Westminster uses the Blackboard Virtual Learning Environment (VLE) which functions both at a course and modular level with every course and module having a dedicated Blackboard site, all accessible from the user's homepage. Module Blackboard sites host teaching sessions that are delivered on line but also act as a focal point for interaction between staff and students away from the classroom environment. They contain administrative and teaching content for the module, allow students to participate in learning activities and interact with staff and their peers in open discussion fora. Blackboard is also used to manage the online submission of coursework, plagiarism checking and return of student marks via the grade centre, improving the flexibility of student access and learning.

Assessment methods

The assessment methods adopted in this course aim primarily to assess the learning outcomes detailed in each constituent module of the course. Although the nature and style of the assessments varies in accordance to the type of module in question, each module will have a component of formative and summative assessments. The formative assessments will guide and support students prior to the submission of their summative assessments. Examples of these include interactive online quizzes, data analysis workshop sessions and review of draft submissions where relevant and appropriate. Overall, the assessment methods are constructively aligned with the teaching methods and are designed, on one hand to develop and examine students' analytical, synthesis & evaluation skills and on the other hand their knowledge, understanding and application of knowledge within a given context (subject specific and transferable). Detailed instructions for each piece of assessment are available in each module handbook, the following encapsulates the core assessment methods used in this course:

- critical reviews
- data analysis & technical reports
- group presentations
- writing journal abstracts (peer review style)
- posters development/presentation
- development of health infographic materials
- Policy analysis reports and briefings
- essays
- design study
- dissertation/project

The process of writing a dissertation of significant length provides students the opportunity to demonstrate in-depth understanding of the chosen topic; practical skills in data collection; analysis and interpretation; and the ability to evaluate, synthesise and present material in an academically rigorous and professional way. All of the assessments within the course are considered to be authentic to the workplace and students will gain relevant employability skills that will provide them with real-life experience of tasks that they will be expected to perform when embarking on a career within pulic health and data science.

Graduate Attribute	Evident in Course Outcomes
Critical and creative thinker	01, 02, 03, 04, 05, 06, 07, 09, 10
Literate and effective communicator	10
Entrepreneurial	10
Global in outlook and engaged in communities	01, 02, 03, 04, 05, 06, 07, 08, 09, 10
Socially, ethically and environmentally aware	04, 06, 07, 10

Course Structure

This section shows the core and option modules available as part of the course and their credit value. Full-time Postgraduate students study 180 credits per year. Additional free text information on the choices may also be included, for example where students must choose one of two modules.. Course structures can be subject to change each academic year following feedback from a variety of sources.

Modules

Level 7

Module Code	Module Title	Status	PT Year (where applicable)	UK credit	ECTS
7HMNT031W	Health Inequalities and Health Promotion	Core	1	20	10
7COSC018W	Introduction to Data Science - Fundamentals of Programming	Core	1	20	10
7HMNT029W	Non-Communicable Diseases and Epidemiology	Core	1	20	10
7COSC019W	Sustainable Solutions with Machine Learning and Big Data	Core	1	20	10
7HMNT030W	Health Economics	Core	2	20	10
7HMNT015W	Postgraduate Research Methods for Health Sciences I	Core	2	20	10
7HMNT018W	Research Methods II & Research Project for Health Sciences	Core	2	40	20
7HMDS002W	Communicating Science	Option	2	20	10
7HMNT013W	Diet and Disease in Public Health	Option	2	20	10
7BIOM023W	Infectious Diseases and Public Health	Option	2	20	10
7HMNT014W	Policy and Governance for Public Health Nutrition	Option	2	20	10
7BIOT004W	Science, Technology and Commercialisation	Option	2	20	10

Please note: Not all option modules will necessarily be offered in any one year. In addition, timetabling and limited spaces may mean you cannot register for your first choice of option modules.

Professional body accreditation or other external references

Although the course is not formally accredited by a professional body, the core components are designed in accordance with the European standards framework specified by the Agency for Public Health Education Accreditation.

Course management

Your course is one of a number of programmes in the School of Life Sciences, part of the College of Liberal Arts and Sciences within the University of Westminster, and is managed by a designated course leader. In addition to the course specific role of the course leader, the Head of School, other senior school staff and the Associate Heads of College, also provide support and management at their respective levels. We also have a school employability director and global engagement coordinators who oversee employability and international study opportunities respectively. The course leader is also collectively supported in the management and running of the course by the course teaching team through their responsibilities for individual modules and contributions to planning. You will meet your course leader, teaching team and members of the school senior management during arrivals week, a programme of events designed to help you with enrolment, registration, and orientation to the university, its processes and the culture of higher education.

The course is monitored each year by the course leader and senior members of the School and College to ensure that it is running effectively and that issues that might affect the student experience have been appropriately addressed. Each course will have Course Representative meetings throughout the year and staff will consider the outcomes from these meetings, evidence of student progression and achievement and the External Examiner's reports to evaluate the effectiveness of the course. All courses are reviewed annually as part of the School, College and University Continuous Improvement Processes, reporting finally to the Academic Council of the University which has overall responsibility for the maintenance of quality and standards in the University.

Academic regulations

The current Handbook of Academic Regulations is available at westminster.ac.uk/academic-regulations.

Course specific regulations apply to some courses.

Academic Support

Upon arrival, an induction programme will introduce you to the staff responsible for the course, the campus on which you will be studying, the Library and IT facilities and additional support available. You will be provided with a Course Handbook, which provides detailed information about the course. Each course has a course leader or equivalent. All students enrolled on a full-time course and part-time students registered for more than 60 credits a year have a personal tutor, who provides advice and guidance on academic matters. The University utilises a Virtual Learning Environment called Blackboard, where students access their course materials and can communicate and collaborate with staff and other students. Further information on Blackboard can be found at https://www.westminster.ac.uk/current-students/studies/your-student-journey/when-you-arrive/blackboard

The Academic Learning Development Centre supports students in developing the skills required for higher education. In addition to online resources in Blackboard, students can also attend Study Skills workshops and schedule one-to-one appointments. Further information on the Academic Learning Development Centre can be found at westminster.ac.uk/academic-learning-development.

Learning support includes our libraries, each of which holds a collection of resources related to the subjects taught at that site. Students can search the entire library collection online through the Library Search service to find and reserve printed books, and access electronic resources (databases, e-journals, e-books). Students can choose to study in the libraries, which have areas for silent and group study, desktop computers, laptops for loan, photocopying and printing services.

Support Services

The University of Westminster's Student and Academic Services department provides a range of advice and guidance. Further information on the advice available to students can be found at https://www.westminster.ac.uk/student-advice

The University of Westminster Students' Union also provides a range of facilities to support students during their time at the University. Further information on UWSU can be found at https://www.westminster.ac.uk/students-union

How do we ensure the quality of our courses and continuous improvement?

The course was initially approved by a University Validation Panel. University Panels normally include internal peers from the University, academic(s) from another university, a representative from industry and a Student Advisor.

The course is also monitored annually by the College to ensure it is running effectively and that any issues that might affect the student experience have been appropriately addressed. Staff will consider evidence from various sources, including student surveys, student progression and achievement, and reports from external examiners, to evaluate the effectiveness of the course and make necessary changes.

Periodic reviews are also conducted to ensure that the curriculum remains up-to-date and that the skills acquired on the course continue to be relevant to employers. Representative students meet with a panel to provide feedback on their experiences. Student feedback from previous years is also part of the evidence used to assess the course's performance.

How do we act on student feedback?

Student feedback is important to the University, and student views are taken seriously. Student feedback is collected in various ways.

- Through student engagement activities at the course and module level, students have the opportunity to express their voice in the running of their course. Course representatives are elected to expressly represent the views of their peers. The University and the Students' Union work together to provide a full induction to the role of the course representatives.
- There are also School Representatives appointed jointly by the University and the Students' Union who meet with senior School staff to discuss wider issues affecting student experience across the School. Student representatives are also represented on key College and University committees.;
- All students are invited to complete a questionnaire for each module. The feedback from this will inform the module leader on the effectiveness of the module and highlight areas that could be improved.

- Final-year undergraduate students will be asked to complete the National Student Survey, which helps inform the national university league tables. Postgraduate students will be asked to complete the Postgraduate Taught Survey (PTES).