Programme Specification and Curriculum Map for BSc (Hons) Environmental Health

	BSc (Hons) Environmental Health BSc (Hons) Environmental Health with Foundation Year
2. Awarding institution	Middlesex University
3. Teaching institution	Middlesex University
4. Programme accredited by	Chartered Institute of Environmental Health
5. Final qualification	BSc. (Hons) Environmental Health
6. Academic year	2022.23
7. Language of study	English
8. Mode of study	Full Time/Part Time

9. Criteria for admission to the programme

B.Sc. (Hons) Environmental Health

Evidence that have capacity to work at level 4+ for example:

5 GCSEs (Grade C or above) or 5 GCEs (Grade C or above)

including: English Language and Mathematics and Science PLUS

one of the following:

Three A-Levels with a minimum of 240 UCAS Tariff points with least one A level in a science or technology subject drawn from Chemistry, Biology, Human Biology, Physics, Geography, Geology, Environmental Science, Nutrition, Food Science or similar.

A BTEC National Diploma or Certificate in an appropriate area (e.g. Applied Science) normally with a minimum of 3 merits OR

Applicants who have successfully completed a relevant Diploma in Access to Higher Education (Science) with a minimum of a merit OR

Applicants who have successfully completed an appropriate (e.g Applied Science) Advanced GNVQ with at least 3 level III passes at merit standard.

Mature Students will be interviewed by the team to discuss suitability for study at level 4

Applicants who have successfully passed a HE Foundation Science programme.

Overseas applicants with an appropriate qualification and an IELTS score of 6.0 and over

Please refer to the programme specification for the Foundation Year for criteria for admission to the BSc (Hons) Environmental Health with Foundation Year programme.

10. Aims of the programme

This programme is vocationally orientated and designed to provide graduates with the skills necessary to analyse and evaluate environmental and health problems in scientific, technical and managerial terms. The programme is designed to produce high quality practitioners, whose skill profile ensures that they can be efficiently and effectively employed in a variety of contexts. Graduates will have received a coherent body of theoretical and applied professional knowledge, transferable skill development, and a fundamental competency in the fields of environmental health that incorporate the ethical dimension of practice.

The teaching team has sought to develop a programme that is directly relevant to environmental health professionals working in, or aspiring to work, in a wide variety of contexts but which fosters the development of an informed, critical and imaginative attitude to professional practice. This has entailed the development of a programme that concentrates on the acquisition of knowledge, together with the skills to appraise and evaluate such theoretical knowledge in a practical context.

The programme offers a balanced approach to managing environmental and health in a range of settings and is designed to meet the changing face of professional practice.

The programme aims, on successful completion. to:

a. Provide a multi-disciplinary understanding of the complexities of environmental and public health practice
b. Provide a balance of scientific, technical, and legislative skills on which to base professional competence in relation to environmental health
c. Enable students to identify, implement and evaluate appropriate control strategies to reduce harm to health
d. Integrate leadership skills in professional practice
e. Enable students to identify principal environmental stressors and their impact on human health.
f. Respond positively and flexibly to a changing environment and facilitate the development of problem solving skills
g. Justify appropriate research methodology to underpin a research and development ethos within the profession.
h. Evaluate and appraise new information, review evidence and critically analyse conflicting theories and assimilate best professional practice

11. Programme outcomes

A. Knowledge and understanding On completion of this programme the successful student will have knowledge and understanding of : 1. Scientific, technological, legislative and managerial principles that impact on Environmental Health practice 2. Principle environmental and occupational stressors and vectors of diseases and how to control them 3. Hazard analysis, risk assessment and management. 4. Professional scope of practice 5. Legislative, technical and scientific knowledge to effect environmental health interventions in complex situations 6. The chemical, biological, physical, social and psychosocial stressors and their implications for health. 7. Comprehensive and detailed knowledge of environmental health intervention areas: Public Health; Food Safety; Health and Safety; Housing and Health; Environmental Protection.	**Teaching/learning methods** Students learn knowledge and understanding through engagement with lectures, participatory seminars, laboratory and practical sessions (either virtual or on campus), and through a variety of directed and self directed learning activities e.g. Group projects, case study analysis, laboratory based learning and data analysis , portfolio development and use of real world examples. . Lectures deliver knowledge and seminars and practical sessions embedded understanding. **Assessment Method** Students' knowledge and understanding is assessed by case study portfolios, problem solving exercises, coursework and in-course tests and examinations and presentations. Completion of an undergraduate thesis and defence of their approach . An understanding of the subject is both summatively and formatively assessed
B. Cognitive (thinking) skills On completion of this programme the successful student will be able to: 1. Recognise good practice in environmental health 2. Develop audit, and investigative skills 3. Analyse and evaluate issues influencing environmental and public health and safety	**Teaching/learning methods** Students learn cognitive skills through case study analysis, laboratory based learning and data analysis exercises and experiments either online or on campus. Group and mini seminars and Workshops. Students are encouraged to challenge and discuss concepts.
4. Prioritise a range of options and select appropriate communication formats to convey solutions 5. Critically evaluate the results of an academic investigation and be able to extract data using a range of techniques appropriate to their chosen fields 6. Design novel solutions to Environmental Health problems 7. Critically evaluate contradictory options to a given problem	**Assessment Method** Student's cognitive skills are assessed by essay, written and oral examination and laboratory data analysis reports and development of dissertation. A professional assessment is incorporated into the final year to meet the CIEH requirement for accredited programmes to deliver the Integrated Professional Assessment which requires the completion of tasks that cover at least two intervention areas and tests the skills that should be employed in practice,

C. Practical skills On completion of the programme the successful student will be able to: 1. Investigate in a range of contexts 2. Make recommendations on a proposed course of action in relation to an Environmental Health problem 3. Undertake safe laboratory practice 4. Apply a knowledge of health and environmental stressors on which to base option appraisal of appropriate environmental health intervention 5. Apply and interpret data gained within defined guidelines 6. Interpret data gained in variety of contexts and compare and contrast conditions in complex and unpredictable situations	**Teaching/learning methods** Students learn practical skills through interactive participation in modules, laboratory exercises , through group work and formative assessment Students must consider options and issues surrounding interventions. **Assessment Method** Students' practical skills are assessed by presentation, problem solving exercises, oral and written examinations (either online or on cam. A professional assessment is incorporated into the final year to meet the CIEH requirement for accredited programmes to deliver the Integrated Professional Assessment which requires the completion of tasks that cover at least two intervention areas and tests the skills that should be employed in practice. In addition a final year Practical Food Inspection is carried out as per the requirements of the CIEH,
D. Graduate Skills On completion of this programme the successful student will be able to undertake: 1. Effective team work 2. Effective communication in verbal and visual forms of presentation 3. Production of written work in a variety of formats (e.g. essays, reports, critiques) 4. Use of appropriate IT packages 5. Personal and career development 6. Analysis and problem solving using numerical skills.	**Teaching/learning methods** Students acquire graduate skills through reading, group work exercises, participation in the programme, structured and directed learning, production of an article for publication, reflection and formative and summative assessments. This is a course designed to prepare students for a career in environmental health and they are encouraged to adopt a professional approach through team work and reflection. **Assessment method** Students' graduate skills are assessed by presentation, oral examination, written assessment and meeting course deadlines. These skills are introduced in year one but run as a continuum throughout the course with a view to prepare students for their professional assessments.

12. Programme structure (levels, modules, credits and progression requirements)

12. 1 Overall structure of the programme

An undergraduate BSc honours degree is comprised of 360 credits of learning. In each year you will take 120 credits of learning and this will enable you to complete your award as a full-time student in 3 years. Part-time students normally undertake 60-90 credits of learning per year and so will complete their study in 4-6 years.

Modules are delivered as either 30 or 15 credits. 30 credit modules are normally studied over the whole academic year of 24 weeks of learning followed by an assessment period. The 15 credit modules are normally studied for 12 weeks in term 1, or 12 weeks in term 2. Some modules may be taught in blocks of learning.

		Physiology and Anatomy	
		Food Animals and Vectors of	
		Principles of Health Stressors	
	PRS1007	Introduction to Law and	
		Research methods	
	BIO2515	Pollution Prevention and Control	15
2	BIO2510	Occupational Safety and Health Interventions	15
2	PRS2107	Housing in public health	15
2	PRS2109	Housing Conditions and Intervention	15
3	PRS3203	Leadership in Environmental and Public Health	15
3	PRS3122	Communication, Society, Ethics and Law in Public Health	15
3	PRS3799	Effective Environmental and Public Health Interventions	60
3	BIO3801	Practical Food Inspection	10
3	PRS3988	Dissertation	30

12.2 Levels and modules

Please refer to the programme specification for the Foundation Year for the modules to be taken during the foundation year of the BSc (Hons) Environmental Health with Foundation Year programme.

Level 4 (Year 1) 120 credits

COMPULSORY	OPTIONAL	PROGRESSION REQUIREMENTS
BIO1160 Environmental Health Science BIO1636 Physiology and Anatomy BIO1637 Food Animals and Vectors of Disease BIO1655 Principles of Health Stressors PRS1007 Introduction to Law and Environmental Health	There are no optional modules	BIO1160 and PRS1007 must be passed. For BIO1636, BIO1637 and BIO1655 a marginal fail may be compensated in accordance with University regulations.

Level 5 (Year 2) 120 Credits

COMPULSORY	OPTIONAL	PROGRESSION REQUIREMENTS
BIO2003 Research methods BIO2515 Pollution Prevention and Control BIO2510 Occupational Safety and Health Interventions PRS2107 Housing in public health	There are no optional modules	Students who wish to transfer from the Certificate of Higher Education Environmental Health will enter into year 2 and receive prior accreditation of their learning**.** BIO2405 Food Safety no modules All level 5 modules must be passed

Level 6 (Year 3) 130 Credits

COMPULSORY	OPTIONAL	PROGRESSION REQUIREMENTS
PRS3203 Leadership in Environmental Health PRS3122 Communication, Society, Ethics and Law in Public Health PRS3799 Effective Environmental Health Interventions BIO3801 Practical Food Inspection PRS3988 Dissertation	There are no optional modules	Before taking the PRS3988 Dissertation module students must pass BIO2003 Research methods All Level 6 modules must be passed

12.3 Non-compensatable modules	
Module level	***Module code***
4 *5* *6*	*BIO1160 and PRS1007 are non-compensatable* *All Level 5 modules (BIO2003, BIO2405, BIO2515, BIO2510, PRS2107, PRS2109) are non-compensatable* *All Level 6 modules (PRS3203, PRS3122, PRS3799, BIO3801, PRS3988) are non-compensatable*

13. A curriculum map relating learning outcomes to modules

See Curriculum Map attached.

14. Information about assessment regulations

The regulations applying to the programme are those common to the University, except in respect of compensation. See section 12.3.

At levels 4 within modules, where there is more than one component to a module assessment, a minimum of 30% is required for each component, following which the marks are aggregated and an overall percentage of at least 40% can be given a pass grade using the Middlesex University 20 point scale. This does not apply to BIO1637 where required pass mark for the practical/table top tests are: Meat identification test: 60%,: Pestology test: 50%.

At levels 5 and 6, where there is more than one piece of assessment a minimum of 40% is required for each assessed element in order to pass the module. This does not apply to BIO3801 Food Practical identification tests where the pass mark is 75%.

There are opportunities for re-assessment in failed components of work and specific details are given in the module handbooks. At levels 5 and 6, where a student has failed a piece of work, the mark for the resubmitted work is capped at 40%.

Students must adhere to module assessment deadlines. Where a student cannot meet the deadline for extenuating reasons (for example illness, accidents, bereavement, family problems), an extension can be formally requested. Failure to participate in assessment without good reason will result in a fail grade for the module.

In some modules, especially those with seminars and laboratories, participation in the sessions is essential in order to achieve the learning for the module. Students who do not attend sufficiently may not be able to submit the relevant assessment for the module.

Where a practical session is not attended, students cannot submit a laboratory report applicable to this session. A register of all laboratory sessions will be kept.

15. Placement opportunities, requirements and support (if applicable)

There is no compulsory placement module but students are encouraged to seek short term or part time placements/work experience in suitable environmental health organisations. The programme leader will make students aware of placement and work experience opportunities known to them via the News Forum in the programme shell.

16. Future careers (if applicable)

The Degree in Environmental Health produces graduates with a wide range of professional, graduate and transferable skills. Within the programme students are able to direct their learning to all aspects of professional practice so that on completion of the award they are able to offer employers broad underpinning knowledge and skills. The award has been matched to the needs of a variety of stakeholders and in particular in relation to the strategic management and operational practice of future environmental and health agencies. Successful students will be able to complete professional qualification pathways that qualify them as Environmental Health Officers depending on their progression to the Chartered Institute of Environmental Health Professional Requirements.

Students also have the opportunity to return to study for a MSc Occupational Safety Health and Environmental Management, MSc Applied Public Health or MSc Sustainability and Environmental Management for future career development. In addition the university is expanding the range of doctoral opportunities, both work based and PhDs.

17. Particular support for learning (if applicable)

The University has a number of points of support for students. Academic support is provided by the Learning Enhancement Team who advise students on literacy, English language, numeracy and exam technique for example. The Disability Support Service offers support to students with needs during their time at Middlesex.

There is an on-line learning platform to provide module and programme support.

Departmental Graduate Academic Assistants support students with their coursework and subject understanding in small group tutorials or on a 1:1 basis. Student Learning Assistants provide peer-learning support and can assist students with their work in class, as well as through 1:1 or small group discussion.

All students will have a named academic adviser personal tutors who will provide programme support throughout their programme.

18. JACS code (or other relevant coding system)	144B910
19. Relevant QAA subject benchmark group(s)	Health Studies. ,Earth Sciences, Environmental Sciences and Environmental Studies

20. Reference points

The following reference points were used in designing the programme:

- Relevant multi-disciplinary subject benchmarks: Earth Sciences, Environmental Sciences and Studies (2014) and Health Sciences (2016)
- Middlesex University Learning and Quality Enhancement Handbook (LQEH) 2019 2021-22
- Middlesex University Regulations 2019- 2021-22
- Chartered Institute of Environmental Health core curriculum for undergraduate programmes 2011

21. Other information

- A free electronic core textbook for every module.
- Printing and photocopying required for study.
- Self-service laptops available for 24 hour loan.
- Laboratory coats for all practical work undertaken on campus.
- Laboratory support for dissertation and materials for experimental work related to dissertation

The following course-related costs are not included in the fees: Additional books to support study;

- Travel costs to field trips (where transport is not provided by the university). These will be on London transport).

Curriculum map for BSc (Hons) Environmental Health

This section shows the highest level at which programme outcomes are to be achieved by all graduates, and maps programme learning outcomes against the modules in which they are assessed.

Programme learning outcomes

Knowledge and understanding		**Practical skills**	
A1	Scientific, technological, legislative and managerial principles that impact on Environmental Health practice	C1	Investigate in a range of contexts
A2	Principle environmental and occupational stressors and vectors of diseases and how to control them	C2	Make recommendations on a proposed course of action in relation to an Environmental Health problem
A3	Hazard analysis, risk assessment and management.	C3	Undertake safe laboratory practice
A4	Professional scope of practice	C4	Apply a knowledge of health and environmental stressors on which to base option appraisal of appropriate environmental health intervention
A5	Legislative, technical and scientific knowledge to effect environmental health interventions in complex situations	C5	Apply and interpret data gained within defined guidelines
A6	The chemical, biological, physical, social and psychosocial stressors and their implications for health	C6	Interpret data gained in variety of contexts and compare and contrast conditions in complex and unpredictable situations
A7	Comprehensive and detailed knowledge of environmental health intervention areas: Public Health; Food Safety; Health and Safety; Housing and Health; Environmental Protection.		
Cognitive skills		**Graduate Skills**	
B1	Recognise good practice in environmental health practice	D1	Effective teamwork
B2	Develop audit and investigative skills	D2	Effective communication in verbal and visual forms of presentation
B3	Analyse and evaluate of issues influencing environmental and public health and safety	D3	Production of written work in a variety of formats (e.g. essays, reports, critiques)
B4	Prioritise a range of options and select appropriate communication formats to convey solutions	D4	Use of appropriate IT packages
B5	Critically evaluate the results of an academic investigation and be able to extract data using a range of techniques appropriate to their chosen fields	D5	Personal and career development
B6	Design novel solutions to an Environmental Health problem	D6	Analysis and problem solving using numerical skills.
B7	Critically evaluate contradictory options to a given problem		

Programme outcomes - tbc																									
A1	A2	A3	A4	A5	A6	A7	B1	B2	B3	B4	B5	B7	C1	C2	C3	C4	C5	C6	D1	D2	D3	D4	D5	D6	
Highest level achieved by all graduates																									
6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	

Module Code	Module Title	A1	A2	A3	A4	A5	A6	A7	B1	B2	B3	B4	B5	B6	B7	C1	C2	C3	C4	C5	C6	D1	D2	D3	D4	D5	D6
BIO1160	Environmental Health Science	X			X				X	X			X			X	X	X						X	X		X
BIO1636	Physiology and Anatomy		X															X									
BIO1637	Food Animals and Vectors of Disease		X													X		X									
BIO1655	Principles of Health Stressors		X				X			X	X							X				X					
PRS1007	Introduction to Law and Environmental Health	X		X		X			X		X	X						X					X	X		X	
BIO2003	Research methods								X	X			X			X								X	X		X
BIO2405	Food Safety		X	X	X	X	X										X										
BIO2515	Pollution Prevention and Control	X	X	X	X	X	X										X	X		X	X						
BIO2510	Occupational Safety and Health Interventions		X	X	X	X	X										X										
BIO2107	Housing in public health		X				X																				
PRS2109	Housing Conditions and Intervention		X	X	X	X	X										X	X									X

PRS3203	Leadership in Environmental Health	x						x	x	x					x		x					x					x	
PRS3122	Communication, Society, Ethics and Law in Public Health											x										x	x	x	x			
PRS3799	Effective Environmental Health Interventions	x	x	x	x	x	x	x	x	x	x	x		x	x		x		x	x	x			x		x		
BIO3801	Practical Food Inspection		x															x								x		
PRS3988	Dissertation									x			x	x	x	x			x		x		x	x		x		