Programme Specification for

MSc Occupational Safety, Health and Environmental Management

1. Programme title	MSc Occupational Safety, Health and Environmental Management
2. Awarding institution	Middlesex University
3. Teaching institution	Middlesex University
4. Details of accreditation by professional/statutory/regulatory body	Institution of Occupational Safety and Health (IOSH)
5. Final qualification	MSc Occupational Safety, Health and Environmental Management
6. Year of validation **Year of amendment**	
7. Language of study	English
8. Mode of study	Full-time/ Part-time

9. Criteria for admission to the programme

Good honours degree, 2.2 or above or equivalent qualification in a relevant branch of science or technology e.g. engineering, construction/manufacturing, environmental health, medicine or nursing.

Professional Diploma (Level 6) e.g. NEBOSH or British Safety Council. Equivalent work based experience may be considered at the discretion of the programme team and may require submission of a piece of work.

10. Aims of the programme

The programme aims to:

- provide students the skills and expertise to enable them to anticipate, recognise,

measure, evaluate, apply and communicate solutions to minimise the risks arising from occupational safety, health and environmental conditions.

At the end of the taught programme students will have acquired the following:

- a coherent body of theoretical and applied professional knowledge and criticality in application to practice in a worldwide and international operations and trade context;
- the ability to integrate research, scientific data, interpret legislative provisions from a range of locales, integrate policy and apply technical and managerial skills within the practice setting in relation to occupational safety, health and environmental management;
- the ability to critically appraise risk in a variety of complex occupational situations, including high risk industries, multisite and internationally operating organisations and design and implement management solutions to mitigate these risks;
- a higher critical awareness of the inter-relationship between the workplace culture, workplace and individual psychology and behaviour, and the work place environment and health, together with the skills to lead change and understand the role of leadership, and followship within the workplace;
- an informed, critical and imaginative attitude towards post graduate and application to professional practice;
- refined communication skills providing the ability to communicate using a variety of media to specialist, senior executives and non-specialist on matters pertaining to occupational safety, health and environmental matters;
- undertaking a major piece of research at masters' level involving the design, planning, implementation and critical evaluation of an area of occupational safety and health using appropriate methodologies, data collection and evaluation;

The professional body for Occupational Safety & Health (IOSH) have provided high level learning objectives from which the programme outcomes of this MSc have been aligned. These are included here and have been embedded with the programme outcomes below:

a) Demonstrate a systematic understanding of the key elements of occupational safety and health, and be at the forefront of knowledge/practice.
b) Apply the methods and techniques that they have learned to review, consolidate, extend and use this understanding to carry out projects.
c) Demonstrate conceptual understanding so that they can solve problems, devise and sustain arguments and describe and comment on current research into occupational safety and health.
d) Demonstrate an evidence-based approach and an appreciation of the limits of knowledge.
e) Manage their own research and learning and be continually aware of where the limits of their own knowledge and skills lie.
f) Effectively communicate information, ideas, problems and solutions to the full range of people they will encounter at work.

11. Programme outcomes

A. Knowledge and understanding

On completion of this programme the successful student will have knowledge and understanding of :

1. Legislative, technical and scientific knowledge to affect OHSE interventions in a wide range of complex situations and in a range of regions and locales.

2. Chemical physical, environmental and biological hazards in the workplace, together with their potential to act synergistically to impact detrimentally on health and to act on the environment.

3. Individual, cultural, and group behaviour and psychology in improving safety and health practice.

4. The influence and importance of the overarching culture and leadership of an organisation in relation to safety health and environmental control.

5. A wide range of management and leadership strategies to create, implement and control safe and healthy systems of work.

6. Comprehensive and detailed knowledge of hazard analysis, risk management, risk modelling, accident causation and assessment models together with application within practice.

7. Experience in application of research approaches, techniques and methodology. Comprehensive and detailed knowledge of hazard analysis, risk management and risk

Teaching/learning methods

Students gain knowledge and understanding through:

- attendance in lectures, seminars;
- variety of directed and self-directed learning activities e.g. group projects, case study analysis;
- case studies that reflect actual workplace environments, which are used to enable students to relate knowledge to practice situations in which they are likely to operate in the future;
- the dedicated environmental and occupational health teaching space which offers demonstrations of equipment and monitoring tools;
- e-learning strategies through the use of professional on line data bases such as Barbour index, HSE campaign sites;
- Unihub which encourages independent study;
- formative assessment through the use of interactive exercises, links to external sources of information and Podcast presentations and lecture notes available to the student for downloading;
- the message board and interactive chat room facility.

Assessment methods

Students' knowledge and understanding is assessed by:

- a combination of coursework, and case studies designed to reflect current working, cultural and physical environments likely to be experienced by students in their future professional activities;
- presentations as a formative

modelling together with application within practice.	assessment with written feedback given rapidly to progress learning and understanding; • examinations, in some modules, to assess key elements of knowledge and application to professional practice.
B. Cognitive (thinking) skills On completion of this programme the successful student will be able to: 1. Critically analyse and evaluate good practice in the management of OHSE. 2. Construct, and evaluate the design and results of audit, and investigative analysis and the application of tools and methods in formulating action plans. 3. Critically and continually reflect on own practice, and that of others and select from a range of options best mechanism to influence others to achieve best practice. 4. Select appropriate approaches to investigations in complex situations and interpret results from such investigations. 5. Problem solve at both and individual problem level and within the context of a range of problems, and prioritise a range of options and select appropriate communication formats to convey solutions. 6. Undertake deep academic research and practitioner enquiry and appraise/synthesise materials from a range of sources. 7. Critically appraise the role of risk perception on human behaviour, risk management and risk analysis.	**Teaching/learning methods** Students learn cognitive skills through: • case study analysis of practical workplace problems relevant to current working practices; • group seminars and practical workshops/ laboratories which will help students articulate ideas, reflect on their understanding and learn from others in a constructive environment; • E-learning facilities available on Unihub such as interactive exercises and debate which will help develop cognitive skills. **Assessment methods** Students' cognitive skills are assessed by: • essay, case study and written examination (some part-seen elements of the exams which relate to scenarios commonly experienced by health and safety professionals); • research proposal and research project.

C. Practical skills On completion of the programme the successful student will be able to: 1. Autonomously apply a range of inspection and investigation techniques, including both innovative and standard techniques. 2. Design solutions and articulate recommendations using a range of media, on a proposed course of action in relation to OHSE problems to senior executives, safety representatives and enforcement bodies in a professional manner. 3. Critically appraise legislation, guidance from a range of legislative bases and complex data and communicate their implications to a wide range of personnel. 4. Work within teams to problem solve and act as the team leader and specialist adviser to improve safety and health practice. 5. Select and manage information in relation to safety, health and environmental assessment/control. 6. Implement and operationalise good practice in occupational safety, health and environment. 7. Undertake a substantial academic investigation and articulate the findings.	**Teaching/learning methods** Students learn practical skills through: • interactive participation in modules; • workplace risk assessments; • practical workplace visits to view and identify a range of hazardous working environments; • the interactive environmental and occupational health laboratory which allows students the opportunity to view and use a variety of occupational hygiene, noise and environmental monitoring equipment. **Assessment methods** Students' practical skills are assessed by: • practical inspection and report writing; • the use of case study assessments. • Some modules also assess presentation skills formatively as a way of improving verbal communications skills often required in professional practice.
D. Post-Graduate skills On completion of this programme the successful student will be able to:	**Teaching/learning methods** Students acquire post-graduate skills through:

1. Communicate effectively both written and verbally. 2. Demonstrate the role of the team in a professional settings and practice to solve problems. 3. Effectively learn through independent study. 4. Use the range of information technology on offer to search for peer reviewed, legislative and professional guidance literature. 5. Demonstrate personal and career development in a professional capacity. 6. Calculate, interpret and apply numerical data required at Level 7. 7. Effectively manage their time throughout the course of study.	• participation in all elements the programme, in particular group work, exercises and the completion of research methods; • MSc dissertation process of planning, researching and resourcing for MSc students. **Assessment methods** Students' post-graduate skills are assessed by: • all forms of assessment, in particular the research methods as an essential element of the course and final dissertation for MSc programmes.

12. Programme structure (levels, modules, credits and progression requirements)
12. 1 Overall structure of the programme
All students will study over a 3 term year Sept. to Sept. for Autumn commencing students and Jan. to Jan. for winter commencing students. There are breaks at Christmas and Easter. Assessments are carried out throughout the year in all terms. Examinations are held in the summer term. The programme is divided into study units called modules. Each module has a credit value of 15 credits, except the research methods and project module, which is 60 credits in size. Each 15 credit module represents approximately 150 hours of student learning, endeavour and assessment. To obtain the Post Graduate Diploma in Occupational Safety, Health and Environmental Management a student will need to have achieved 120 credits of learning at Level 7. The students will need to also have completed the project (180 credits in total) in order to gain the MSc. NB. The programme operates as a long year programme.

12.2 Levels and modules		
Level 7		
COMPULSORY	OPTIONAL	PROGRESSION REQUIREMENTS
Students must take all of the following: **PRS4421** *15 credits* **PRS4431** *15 credits* **PRS4210** *15 credits* **PRS4211** *15 credits* **PRS4512** *15 credits* **PRS4552** *15 credits* **PRS4700** *15 credits* **PRS4663** *15 credits* **PRS4799** *60 credits*		

12.3 Non-compensatable modules (note statement in 12.2 regarding FHEQ levels)	
Module level	**Module code**

Level 7	PRS4421, PRS4431, PRS4512, PRS4210, PRS4211, PRS4552, PRS4700, PRS4663, PRS4799

13. Curriculum map

See attached.

14. Information about assessment regulations

The regulations applying to the programme are those common to the University, except that where modules are multiply assessed all elements need to be passed at a minimum grade of 16 (40%) on the University 20 Point Scale.

Self-deferral is not permitted.

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

Many students particularly part-time students will often be working in a safety, health or environmental role although not a necessary component of the degree as both full-time and part-time students will be exposed to a variety of practical exercises and case studies with input from existing practitioners to enable them to put the learning into context.

Placement experience(s) will be encouraged as this will enhance the learning experience and will aid in the achieving professional body requirements to complete 2 year professional development post qualification.

The university is part of the IOSH work shadowing schemes, details of which are posted in my programme element of Unihub.

16. Future careers (if applicable)

Increased skills in occupational health, safety and environmental risk assessment, auditing and an enhanced knowledge of occupational health & safety management will improve students' overall value to the employer and profession.

Students' ability to take on an advisory or a more management role within an organisation will be advanced. The programme enables students to continue a career in occupational health, safety & environment.

17. Particular support for learning (if applicable)

- specialist environmental and occupational laboratory/teaching space;

- Barbour Index;
- specialist external lecturers;
- specialist safety and health equipment and materials.

18. JACS code (or other relevant coding system)	011B921
19. Relevant QAA subject benchmark group(s)	Health Studies Biosciences

20. Reference points

The following reference points were used in designing the programme:

- MiddlesexUniversity (2006) Learning Framework Document
- Middlesex University Guide and Regulations
- Chartered Institute of Occupational Safety and Health standards (Jan 2011)
- IEMA environmental management associate certificate
- National Training Organisation for Employment standards for Occupational Safety and Health

21. Other information

Please note programme specifications provide a concise summary of the main features of the programme and the learning outcomes that a typical student might reasonably be expected to achieve if s/he takes full advantage of the learning opportunities that are provided. More detailed information about the programme can be found in the rest of your programme handbook and the university regulations.

Appendix 2: Curriculum Map

Curriculum map for MSc Occupational Health and Safety Management

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	Legislative, technical and scientific knowledge to affect OHSE interventions in a wide range of complex situations and in a range of regions and locales.	C1	Autonomously apply a range of inspection and investigation techniques, including both innovative and standard techniques.
A2	Chemical physical, environmental and biological hazards in the workplace, together with their potential to act synergistically to impact detrimentally on health and to act on the environment.	C2	Design solutions and articulate recommendations using a range of media, on a proposed course of action in relation to OHSE problems to senior executives, safety representatives and enforcement bodies in a professional manner.
A3	Individual, cultural, and group behaviour and psychology in improving safety and health practice.	C3	Critically appraise legislation, guidance from a range of legislative bases and complex data and communicate their implications to a wide range of personnel.
A4	The influence and importance of the overarching culture and leadership of an organisation on safety health and environmental control.	C4	Work within teams to problem solve and act as the team leader and specialist adviser to improve safety and health practice.
A5	A wide range of management and leadership strategies to create, implement and control safe and healthy systems of work.	C5	Select and manage information in relation to safety, health and environmental assessment/control.
A6	Comprehensive and detailed knowledge of hazard analysis, risk management, risk modeling, accident causation and assessment models together with application within practice.	C6	Implement and operationalise good practice in occupational safety, health and environment.
A7	Experience in application of research approaches, techniques and methodology Comprehensive and detailed knowledge of hazard analysis, risk management and risk modeling together with application	C7	Undertake a substantial academic investigation and articulate the findings.

	within practice.		
Cognitive skills		Graduate Skills	
B1	Critically analyse and evaluate good practice in the management of OHSE.	D1	Communicate effectively both written and verbally.
B2	Construct and evaluate the design and results of audit, and investigative analysis and the application of tools and methods in formulating action plans.	D2	Demonstrate the role of the team in a professional settings and practice to solve problems.
B3	Critically and continually reflect on own practice and that of others and select from a range of options best mechanism to influence others to achieve best practice.	D3	Effectively learn through independent study.
B4	Select appropriate approaches to investigations in complex situations and interpret results from such investigations.	D4	Use the range of information technology on offer to search for peer reviewed, legislative and professional guidance literature.
B5	Problem solve at both and individual problem level and within the context of a range of problems, and prioritise a range of options and select appropriate communication formats to convey solutions.	D5	Demonstrate personal and career development in a professional capacity.
B6	Undertake deep academic research and practitioner enquiry and appraise/synthesise materials from a range of sources.	D6	Calculate, interpret and apply numerical data required at Level 7.
B7	Critically appraise the role of risk perception on human behaviour, risk management and risk analysis.	D7	Effectively manage their time throughout the course of study.

Programme outcomes																										
A1	A2	A3	A4	A5	A6	A7	B1	B2	B3	B4	B5	B6	B7	C1	C2	C3	C4	C5	C6	C7	D1	D2	D3	D4	D5	D6	D7
Highest level achieved by all graduates																											
7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7

Module Title	Module Code by Level	Programme outcomes																											
		A1	A2	A3	A4	A5	A6	A7	B1	B2	B3	B4	B5	B6	B7	C1	C2	C3	C4	C5	C6	C7	D1	D2	D3	D4	D5	D6	D7
Occupational Safety and Health Management and Law	PRS4421	X			X	X			X		X					X		X		X	X				X				X
Fundamentals of Strategic Risk Management	PRS4431						X			X		X			X														
Occupational Hygiene and Health	PRS4512		X				X			X		X		X			X							X				X	
Factors Shaping Health and Safety At Work	PRS4210					X	X			X				X					X				X				X		X
Managing Health and Safety Processes At Work	PRS4211	X				X			X		X					X		X			X				X				
Environmental Assessment and Management	PRS4700	X	X						X			X	X			X	X			X	X					X			
Health and Safety Within High Risk Industries	PRS4552		X									X	X				X						X		X				
Occupational Psychology and Ergonomics	PRS4663			X		X					X		X		X				X		X						X		
Research Methodology and Dissertation	PRS4799							X						X								X				X		X	X