



School of Public Health
Departement Openbare Gesondheid
Isikolo Sempilo Yoluntu



PROFESSIONAL MASTER'S IN CHEMICAL RISK MANAGEMENT (MCRM)

Programme Code: MM037

Programme Brochure 2024/2025

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Division of Environmental Health | UCT

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Table of Contents

1. Introduction.....	5
2. Programme Objectives.....	5
3. Target Candidates.....	5
4. Entry requirements	6
5. Programme structure and duration.....	6
6. Curriculum requirements.....	8
6.1. Minimum requirements for progression and re-registration.....	8
6.2. Assessment of student performance.....	8
6.3. Distinction.....	8
6.4. Credit and exemption.....	9
7. Programme rules.....	9
7.1. Registration	9
7.2. Progression rules.....	9
7.3. Attendance/online participation.....	9
7.4. Communication	10
7.5. Plagiarism	10
7.6. University Language policy	10
7.7. The Writing Lab	10
7.8. Leave.....	11
7.8.1. Notice to leave: Withdrawal of Registration.....	11
7.8.2. Leave of absence (LOA)	11
8. General information.....	12
8.1. Fees	12
8.2. Total course fees	12
8.3. Proforma invoices	12
8.4. Financial assistance	12
9. Programme content	14
Year 1 courses.....	14
Course 1: Pesticide Risk Management (PPH4033F)	14
Course 2: International Chemical Management Agreements (PPH4041S)	14
Course 3: Pesticide Toxicology (PPH4034S).....	15
Course 4: Research Literacies (PPH6032R)	15
Year 2 courses.....	15

	Course 5: Risk Communication and Policy Brief Development (PPH6033Q)	15
	Course 6: Core Course in Chemical Risk Management PPH6035Q/R)	16
	Course 7: Chemical Risk Assessment for Managers (PPH6036R)	16
	Course 8: Situation Analysis Research Task (PPH6034R)	16
	Course 9: Master’s Project (PPH6037R)	16
10.	Key exit competencies	17
11.	Application checklist	18

1. Introduction

This brochure provides information to assist prospective candidates in deciding whether the Professional Master's in Chemical Risk Management (MCRM) programme suits their needs. It also provides programme and financing information for applicants.

Students interested in applying for this course should apply online and send an email for more information to: mcrm@uct.ac.za

Prospective students must first apply [ONLINE](#).

Once you have your student number, please email it to: mcrm@uct.ac.za

Please follow the application checklist on page 16 to make sure that your application is complete. Incomplete applications will not be considered.

Information about the Division of Environmental Health is available [HERE](#).

General information about the University of Cape Town (UCT) is available [HERE](#).

2. Programme Objectives

The primary purpose of this qualification is to advance knowledge, critical thinking, and the application of cutting-edge approaches to the multi-stranded complexity of managing chemical risks in a sound and sustainable approach to protect the health of all, but particularly vulnerable, populations. Especially for difficult use and regulatory contexts, where there are often competing vested interests. This programme aims to equip students with the ability to solve complex problems, build capacity in their work environment, and be able to contribute to national, regional, and international policy debates and development.

3. Target Candidates

This Professional Master's is aimed at health professionals, chemists, biologists, sociologists, anthropologists, ecologists, agronomists, toxicologists, and other professionals working in the field of chemicals management in low- and middle- income countries (LMICs). Applicants could be working for government, academics, staff of a non-governmental organization (NGO) or an intergovernmental organization (IGO), researchers and others.

The programme is open to applicants globally and particularly from Africa and other LMICs.

Individual courses will be open, subject to any limitation on numbers, to candidates from other postgraduate degrees at UCT and to individuals interested in single semester courses non-degree purposes. Individuals wishing to complete only one course and not the whole programme may register as **an occasional student**. Read more about occasional students [here](#).

A successfully completed course can be used to fulfil requirements in future should an individual apply to the full MCRM programme. Occasional student applicants need to meet the same entry requirements as full MCRM programme applicants.

4. Entry requirements

- Four-year undergraduate degree or a relevant postgraduate diploma. Since chemical risk management is an eclectic field and incorporates a board range of disciplines (e.g., chemistry, science, toxicology, public health, medicine, environmental sciences, agriculture, biology, political science, economics, sociology, anthropology, psychology) and therefore a broad range of four-year degrees will be accepted depending on the experience the applicant has had with chemicals.
- Demonstrated proficiency in written and spoken English (TOEFL required where appropriate).
- Reliable and continuous internet connectivity.
- Demonstrated computer literacy.
- Proven ability to write technical reports and assessments.
- Demonstrated numeracy skills.
- For applicants who have completed courses in UCTs postgraduate diploma in

Pesticide Risk Management (DPRM; MG021), at least 65% must have been achieved for two of the following three courses: PPH4033F (Pesticide Risk Management), PPH4041S (International Chemicals Management Agreements) and PPH4034S (Pesticide Toxicology).

5. Programme structure and duration

The programme consists of specialised coursework (7 courses: 108 credits), a situational analysis research task (30 credits) and a master's project (42 credits). Three courses are completed under UCTs postgraduate diploma in Pesticide Risk Management (20 credits each at NQF Level 8).

The programme content will equip students with the ability to solve complex problems, build capacity in their work environment, and be able to contribute to national, regional and international policy debates and development. As a professional master's, the programme will provide students with a broad range of skills and practical applicability through a situational analysis task and a project that addresses various complexities through analysis, research and problem- solving. The practical activities will take the form of assignments for each course within the programme.

Duration

This blended programme is offered as a two-year, part-time, flexible learning programme with a substantial distance-learning component, using internet-based education technology.

Attendance at a two-week teaching block at the beginning of the programme is mandatory.

Students may not be registered beyond three years.

Time commitment

Students will be required to be in weekly electronic contact with lecturers and conveners.

There will be substantial requirements for homework in the form of assignments and project related work, expected self-directed learning and regular distance communication between students and lecturers extending over the two years. Students may not be registered beyond three years.

Candidates are expected to undertake substantial homework preparation and activities, as well as self-directed learning. They will be expected to read widely and intensively around topics of the programme, and to contribute to teaching inputs themselves either directly or by way of specially structured interactive debates and discussions in an on-line chat room forum (through Zoom), as well as through posting discussions on-line. The content of these activities will include critical thinking and the application of cutting-edge approaches to the multi-stranded complexity of managing chemical risks in a sound and sustainable approach in difficult contexts and with competing vested interests to protect the health of vulnerable and all populations.

Computer hardware, software and skills required of students:

As this programme contains a substantial component of online and self-directed learning, it is imperative that the applicant understands the requirements for computer skills, time spent working on the courses while off campus and student participation expectations if accepted into the course. Candidates should have good and easy access to a reliable computer and the internet. It is important that students have computer capabilities and access to the following software (or the equivalent):

- Word
- Excel
- PowerPoint
- Outlook express or equivalent email handling software
- An up-to-date browser
- A Media Player to run some of the interactive materials

Reliable connectivity to the internet either at home or at work, preferably both. Students must be able to access the internet on weekends.

6. Curriculum requirements

6.1. Minimum requirements for progression and re-registration

A student who fails to meet the following minimum requirements may be refused permission to renew his/her registration for the programme:

- a) In each year of study, the student shall pass, with a minimum of 50%, at least half of the courses registered, with the exception of the final year of study, in which the student will be expected to complete the requirements for the masters.
- b) Students may be allowed to repeat a course they have failed once, at the convener's discretion. Where a candidate fails any course twice, or fails more than one course, a recommendation may be made to the Faculty Examinations Committee to refuse readmission.
- c) A student must be able to complete all requirements for the master's within three years.
- d) Students are required to complete three UCT postgraduate diploma degree in Pesticide Risk Management, NQF level 8, courses (i.e., PPH4033F, PPH4034S, and PPH4041S) in the first year to proceed to the NQF 9 courses.
- e) Students need to complete and pass the Research Literacies course (PPH6032R), which is completed in year one of the programme, before they can register for the Situational Analysis Research Task course (PPH6034R) which is in year two.
- f) Students need to pass the Risk Communication and Policy Brief course (PPH6033Q) prior to registering for the master's project (PPH6037R).
- g) Students may not proceed to the Master's Project (PPH6037R) until they have successfully passed the Situation Analysis Research Task course (PPH6034R).

6.2. Assessment of student performance

- a) The course marks for Courses 1-7 will be comprised of:
 - 60% - forum assignments, discussion forum participation, online quizzes, and assignments.
 - 40% - final assignment consisting of a policy brief, policy analysis report or critical review.
- b) Online assessments are managed through the UCT's online learning platform. Each assignment and exercise have a deadline and submission date and time.
- c) Online quizzes are timed once opened and students are given a week to open the quiz on to fit into their work schedule and time zone.
- d) The situational analysis research task and independent implementation project will have one final mark each. A milestone and rubric will be provided to students which will consist of marks for completed milestones that will form the final mark.

6.3. Distinction

The master's may be awarded with distinction to candidates who average 75% or above for all courses, with not less than 70% for any course, subject to all courses being passed during the first attempt.

6.4. Credit and exemption

Students with a UCT postgraduate diploma degree in Pesticide Risk Management (DPRM; MG021) may apply for credit and exemption for the following courses PPH4033F; PPH4034S; PPH4041S with a pass mark of 60%.

7. Programme rules

7.1. Registration

- All participants, including non-degree candidates, or candidates for other UCT degrees, must register and pay fees.
- People may not “audit” courses, (i.e., may not “sit in” for non- examination purposes without registering and paying fees).
- Participation by non-degree candidates (i.e., occasional students) or candidates for other UCT degrees must be approved in advance by the programme convenors.
- Participants must register and will be billed.

7.2. Progression rules

A student who fails to meet the following minimum requirements may be refused permission to renew his/her registration for the programme:

- In each year of study, the student shall pass, with a minimum of 50%, at least half of the courses registered, with the exception of the final year of study, in which the student will be expected to complete the requirements for the masters.
- Students may be allowed to repeat a course they have failed once, at the convener’s discretion. Where a candidate fails any course twice, or fails more than one course, a recommendation may be made to the Faculty Examinations Committee to refuse readmission.
- A student must be able to complete all requirements for the master’s within three years.
- Students are required to complete three DPRM, NQF level 8, courses in the first year to proceed to the NQF 9 courses (i.e., PPH4033F, PPH4034S, and PPH4041S).
- Students need to complete and pass the Research Literacies course (PPH6032R), which is completed in year one of the programme, before they can register for the Situational Analysis Task course (PPH6034R) which is in year two.
- Students need to pass the Risk Communication and Policy Brief course (PPH6033Q) prior to registering for the master’s project (PPH6037R).
- Students may not proceed to the Master’s Project (PPH6037R) until they have successfully passed the Situation Analysis Research Task course (PPH6034R).

7.3. Attendance/online participation

As this programme contains a substantial component of distance and self- directed learning, it is imperative that students understand the time and participation requirements that will be expected of them. These include:

- Following a set timetable for course preparation by timeously reading materials provided, conducting self-directed learning activities by going beyond the materials provided, and diligent application to the various exercises, quizzes and project related work that constitutes the course.
- Daily accessing (approximately 30 minutes per day) and participating in the UCT online learning platform is required for asynchronous (writing and reading discussion exercises, assignments and quizzes) and synchronous (tutorial sessions via Zoom) learning activities.

7.4. Communication

The primary communication between students, course convenors and module lecturers is through WhatsApp, e-mail and UCT online learning platform. It is essential that students ensure the programme administrator has the student's current contact details (e-mail and phone) during the full time they are registered as a student. Skype/ Zoom appointments with the administrator and programme convenors are also available.

7.5. Plagiarism

The University has strict rules against [plagiarism](#) (i.e., presenting the work of others, including fellow students, as one's own without acknowledgement). Candidates will be expected to submit signed declarations with all written work. Plagiarized work will earn zero, and the student will be reported via the University disciplinary process.

7.6. University Language policy

English proficiency is a requirement for study at UCT. Second language speakers may be required to prove their English competency. For minimum levels of English proficiency required for consideration for admission to UCT read [HERE](#).

7.7. The Writing Lab

The Faculty of Health Sciences Writing Lab at UCT, which forms part of the Language Development Group in the Academic Development Programme, Centre for Higher Education Development, offers students free assistance with their academic writing. Students are required to use the services of the Writing Lab for each course final assignment. Students must book an appointment well in advance as slots fill up.

Please visit their website: [Writing Lab](#) for guidelines on their services, the team and to access any of their free writing resources.

Make an appointment with the Writing Lab staff by accessing the booking schedule: [Online Booking System](#). You will need to create an account using your [myUCT](#) email address and clicking on Health Sciences.

7.8. Leave

7.8.1. Notice to leave: Withdrawal of Registration

If a student will be discontinuing studies permanently then they must formally cancel registration in writing on the [prescribed form](#). This is of considerable importance because if a candidate leaves without cancelling, they will still be liable for fees that are payable. Applications for retrospective cancellation of registration are not accepted. Students will be provided with the specified dates after which a cancellation cannot be accepted, or any fees refunded.

7.8.2. Leave of absence (LOA)

If it is impossible for a candidate to continue with his/her studies in any given year (for example due to serious illness) but they intend continuing in the following year then they must apply for [leave of absence](#), in writing, to the Dean. Leave of absence can be awarded for a full year, the first six months or the second six months of the year. A maximum of one year of LOA is allowed. The request for [leave of absence](#) must state the period, the reasons and include supporting documentation (e.g., medical certificate) and have the signed support of the supervisor and Head of Department.

8. General information

8.1. Fees

The University's course-based fee structures will enable students to calculate the cost of their academic studies at UCT in 2024 based on 2023 fees (there will be a fee increase of less than 10% so this is just an estimate). See [2023 Fees Handbook](#).

Students can use the course codes listed in this brochure to look up the all-inclusive cost of the degree in the 2023 fees booklet. The sum of these costs will give the total cost for the set of chosen courses.

All students from outside South Africa should refer to fees for international students. Visit [IAPO - Fees and Payments](#) for more information.

8.2. Total course fees

Please note the fees in the table 1 are for 2023. An increase of approximate 10% for 2024 should be added.

Table 1: Estimated MCRM 2024 Fees

Student Category	Tuition: Courses Year 1 (4 courses)	Tuition: Courses Year 2 (5 Courses Estimated)	International Admin Fee (non-refundable)	International Term fee	Total
South African	ZAR33 340	ZAR50 860	n/a	n/a	ZAR84 200
SADC region (within Africa)	ZAR33 340	ZAR50 860	ZAR4700	n/a	ZAR88 900
Non-SADC (within Africa)	ZAR33 340	ZAR50 860	ZAR4700	ZAR43 200	ZAR132 100
International (rest of the world)	ZAR33 340	ZAR50 860	ZAR4700	ZAR57 900	ZAR146 800

8.3. Proforma invoices

Proforma invoices be requested for an estimate of the total cost of the course fees by completing [this form](#).

8.4. Financial assistance

Every year students are disappointed because they are accepted into the programme and then must cancel their place as they have not applied for any funding. **It is recommended**

that students start looking for funding immediately after applying and do not wait until you receive an acceptance letter to investigate your opportunities.

Some suggestions for bursaries are:

1. [UCT Postgraduate Funding Office - Funding Noticeboard](#)

Tel: +27-21-650 3629

Email: pgfunding@uct.ac.za

2. [Faculty of Health Sciences Funding Noticeboard](#)

Other options:

- Inquire what bursary options your place of employment offers.
- Contact the British Council and embassies in your country to inquire about educational bursary options.
- Investigate personal loan options from your bank.

9. Programme content

The MCRM programme is structured over two years as follows:

Year 1 courses

Students are required to complete all courses listed below in year 1 if the student wants to graduate within two years:

Course Name	Course Code
Course 1: Pesticide Risk Management	PPH4033F
Course 2: International Chemical Management Agreements	PPH4041S
Course 3: Pesticide Toxicology	PPH4034S
Course 4: Research Literacies	PPH6032R

Year 1 course details

Course 1: Pesticide Risk Management (PPH4033F)

Course outline: Five modules (two weeks each) introduce students to the International Code of Conduct on Pesticide Management, a life cycle analysis approach, pesticide policy, a legal framework for pesticides, international conventions, and how to regulate vulnerable populations and complex use environments. The central management philosophy taught in this course is to regulate, control and monitor pesticides through a holistic life-cycle approach (from the beginning until the end of a product's life). Students will be introduced to the basic principles of risk, risk assessment, highly hazardous pesticides, ethical pesticide policies, a situation and gap analysis, pesticide management, risk reduction policies, compliance with international commitments and standards, registration issues, pesticide governance, implementation of pesticide legislation, incorporating vulnerability into the registration process and how to design a life cycle management strategy for a particular pesticide. At the end of the course, students will have developed an approach to critically analyze pesticide policies and the registration process to promote effective regulatory implementation in varying pesticide use contexts (e.g., different climates, populations, legal structures).

Course 2: International Chemical Management Agreements (PPH4041S)

Course outline: This course aims to provide students with an in-depth knowledge of the various international chemical conventions and agreements, and their relevance to managing chemical risks, particularly in low- and middle-income countries (LMICs). These include the International Code of Conduct on Pesticide Management, the Stockholm Convention, the Rotterdam Convention, Basel Convention, Minamata Convention, and the Strategic Approach to International Chemicals Management (SAICM) and the Beyond 2020 Instrument. The five modules cover an introduction to global cooperation on chemical management, legally binding instruments for chemicals management, and the different implementation elements

of the conventions and agreements (e.g., legislation, capacity building, financing, and monitoring and evaluation.

Course 3: Pesticide Toxicology (PPH4034S)

Course outline: The course provides students with the technical knowledge base and skills to regulate and manage the acute and chronic health effects associated with exposure to pesticides. To promote this understanding, students receive training in the basic chemistry of pesticides and how to interpret the WHO and GHS hazard classification systems. An introduction to pesticide toxicology, pesticide epidemiology, and the principles of risk and hazard assessment provides the technical skills and knowledge base to evaluate the quantitative human risk assessment data in pesticide dossiers. The health consequences of pesticide exposure are covered through an understanding of exposure pathways and multiple exposures, as well as endocrine disruption, neurotoxicity, genotoxicity, immunotoxicity (vital for countries with high immune-compromised populations), and reproductive effects. The course also covers ways to interpret strength-of-association in epidemiological studies and to critically appraise pesticide health literature. Students learn how to assess human risk assessment data submitted as a part of a pesticide dossier, and the application of the Code and lifecycle approach to health risk assessment.

Course 4: Research Literacies (PPH6032R)

Course outline: This course is comprised of three modules. In the first module, students will be introduced to academic writing principles, conducting literature reviews, mechanics of referencing, and drafting literature reviews. In the second module, students will also be introduced to different methodological approaches such as situational analysis, needs assessment, and health and environmental impact assessment, and relevant tools for supporting methodological assessments. In the third module, students will be taught fundraising strategies and how to write strong funding proposals.

Year 2 courses

Students are required to complete all courses listed below in year:

Course Name	Course Code
Course 5: Risk Communication and Policy Brief Development	PPH6033Q
Course 6: Core Course in Chemicals Risk Management	PPH6035Q/R
Course 7: Chemical Risk Assessment for Managers	PPH6036R
Course 8: Situation Analysis Research Task	PPH6034R
Course 9: Master's Project	PPH6037R

Course 5: Risk Communication and Policy Brief Development (PPH6033Q)

Course outline: The aim of this course is to provide students with skills needed for research translation through implementing chemical risk prevention and risk reduction interventions. Students will learn different intervention models, particularly risk communication strategies,

and promoting policy changes through policy briefs. They will learn the purpose and functions of policy briefs, developing and disseminating policy briefs. The course also covers other elements and issues linked to risk communication in chemicals management, various tools and developing chemicals risk communication strategies.

Course 6: Core Course in Chemical Risk Management PPH6035Q/R)

Course outline: The aim of this course is to provide students with extensive knowledge on the complex aspects of managing chemical health and environmental risks along the life cycle of the chemical to protect vulnerable populations in low- and middle-income countries. Students will learn advanced knowledge in frameworks for sound management of chemicals, policy, drivers and principles of chemicals management, and strategies for developing chemicals management. They will also gain advanced knowledge to promote decision-making and critical thinking involved in chemicals management and specifically health and environmental risk reduction.

Course 7: Chemical Risk Assessment for Managers (PPH6036R)

Course outline: The aim of this course is to provide students with the knowledge to implement risk assessment for sound management of chemicals at a management level. It covers the background to risk assessment for managers, hazard and risk assessment, risk reduction and assessment issues for managers. Students will learn on using risk assessment data for making regulatory decisions, conducting substitution and alternative assessments, and three safety nets in managing chemicals. The course also covers risk assessment in managing public health incidents and alternative approaches to risk assessment.

Course 8: Situation Analysis Research Task (PPH6034R)

Course outline: This is a self-driven course. Students will be provided with instructions, marking rubric and milestones. They will be expected to submit a task proposal for approval by the course convenors, and the final report at the end of the course. The final report will comprise of an introduction, literature review, methods, results, findings, recommendations and conclusion.

Course 9: Master's Project (PPH6037R)

Course outline: This is a self-directed intervention project where the student makes use of the research findings and data collected in the Situational Analysis Research Task course (PPH6034R), as well as applies the research translation skills learned in the Risk Communication and Policy Brief Development course (PPH6033Q). Students will develop, implement, and evaluate an intervention to address the real-life problems linked to chemicals within their country or the country they are working in. The problems to be addressed and implementation recommendations will be informed by the findings and data the student collected in the Situational Analysis Research Task course (PPH6034R).

10. Key exit competencies

- After completion of the programme, a student will:
- Have a critical understanding of the complex landscape for managing chemical risks from a lifecycle perspective.
- Be able to identify the chemical management complexities for Africa and LMICs, and to apply relevant prevention and risk management strategies.
- Have the skills required to conduct a situation analysis, case-study project and problem solve in LMIC contexts.
- Have the ability to translate research and data for diverse stakeholders for policy making and community-based interventions.
- Have skills needed for risk communication and research translation, as well as for promoting policy changes through policy briefs.
- Be equipped with critical and analytical research and writing skills; the ability to translate research findings for academic and non-academic audiences; and skills in writing proposals, sourcing funding and project management of research projects.

11. Application checklist

<p>Step 1</p>	<p>Completed UCT online application.</p> <p>You will be required to upload the following:</p> <ul style="list-style-type: none"> • Up-to-date CV • Certified copy of a transcript and a transcript key explaining the grades or marks • Motivation letter. The motivation letter should include the following: <ul style="list-style-type: none"> • A one-page motivation of why you want to enroll for this programme. • Please write your motivation as an essay with correct punctuation. • Explain what experience / skills you bring to this programme. • Describe how this program will improve your current work / skills. • What are your career plans for the future and how will this programme play a role?
<p>Step 2</p>	<p>Sent student number to the programme administrator (send to mcrm@uct.ac.za)</p>
<p>Step 3</p>	<p>Submitted all certified copies of transcripts to UCT</p>
<p>Step 4</p>	<p>Submitted key explaining transcripts' grades/marks</p>
<p>Step 5</p>	<p>Submitted proof of English proficiency (e.g., TOEFL results), if applicable</p>
<p>Step 6</p>	<p>Submitted certified copy of ID or passport</p>
<p>Step 7</p>	<p>Submit all applications/ documents by 31 August 2023</p>
<p>Step 8</p>	<p>Secured funding</p>