## MASTER OF SCIENCE IN MEDICINE (EXPOSURE SCIENCE)

(Short Courses 2021)





#### **MASTER OF SCIENCE IN MEDICINE (EXPOSURE SCIENCE) SHORT COURSES FOR 2021 Course Name** Course Code Cost Price **Course Date Application Deadline** Exposure Science I R 6 500 SPUH0146 Competence 3 - 7 May 2021 29 Mar 2021 Exposure Science L R 6 000 29 Mar 2021 SPUH0147 Attendance 3 - 7 May 2021 Fundamentals of Risk Assessment R 6 500 28 Jun 2021 Competence SPUH0151 2 - 6 Aug 2021 28 Jun 2021 Fundamentals of Risk Assessment Attendance R 6 000 SPUH0150 2 - 6 Aug 2021 **Exposure Control I** R 6 500 2 Aug 2021 Competence 6 - 10 Sep 2021 SPUH0149 R 6 000 Exposure Control I SPUH0148 6 - 10 Sep 2021 2 Aug 2021 Attendance

#### 1. EXPOSURE SCIENCE I

This short course introduces fundamentals of exposure science, with emphasis on the similarities of the underlying mechanisms and processes from release at the source to emission at the receptor in environmental, consumer and workplace exposure. This is imperative to broaden the view of the participants and promote a holistic approach of external exposure, the intake or uptake, and potential health outcomes.

#### THE COURSE COVERS THE FOLLOWING TOPICS:

- Introduction to exposure science and exposure ontology
- Characteristics of workplace, residential, environmental and consumer exposure
- Relationship between outdoor-indoor exposure
- Aggregated and cumulative exposure
- Inhalation models from exposure to dose, and basic kinetics (absorption, distribution, metabolism, excretion)

#### **CERTIFICATE TYPE: COMPETENCE OR ATTENDANCE**

#### **APPLICATION DEADLINE: 29 MARCH 2021**

Competence: External applicant – R6 500

Wits staff/student – R3 250

Attendance: External applicant – R6 000

Wits staff/student – R3 000

### 2. FUNDAMENTALS OF RISK ASSESSMENT

The short course aims to introduce participants to risk governance, which includes risk assessment, man-agement and communication. The course introduces the basic principles of risk assessment, and elabo-rates on regulatory, probabilistic and comparative risk assessment. The strengths and limitations of control banding, in general, are explored, in addition to some specific tools, with practical exercises. Different risk assessment and prioritisation tools are also introduced in this course.

- Fundamentals of risk assessment
- Regulatory risk assessment & probabilistic risk assessment
- Introduction to comparative risk assessment & alternative assessment
- Life cycle (inventory) and assessment
- Risk assessment/prioritisation tools
- Exposure-induced risk and health status
- Exposure-induced risk and vulnerable groups

# CERTIFICATE TYPE: COMPETENCE OR ATTENDANCE

### APPLICATION DEADLINE: 28 JUNE 2021

#### Competence:

External applicants – R6 500 Wits staff/student – R3 250

#### Attendance:

External applicants – R6 000 Wits staff/student – R3 000

#### 3. EXPOSURE CONTROL I

This short course aims to introduce participants to principles of risk and exposure controls. Different types of controls will be introduced according to the hierarchy of controls with practical examples. Selection or identification of controls through stakeholder engagement, cost-effectiveness analysis and other tools such as multi-criteria decision analysis will also be introduced.

## THE COURSE COVERS THE FOLLOWING TOPICS:

- Fundamentals of intervention/ implementation science
- Formative research
- Stakeholder communication
- Cost-benefits/cost effectiveness
- Health economics
- Multi-criteria decision analysis
- Resilience interventions

#### CERTIFICATE TYPE: COMPETENCE OR ATTENDANCE

### **APPLICATION DEADLINE:** 2 AUGUST 2021

#### Competence:

External applicants – R6 500 Wits staff/student – R3 250

#### Attendance:

External applicants – R6 000 Wits staff/student – R3 000



#### FOR APPLICATIONS, CONTACT:

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