



INSTITUTO DE HIGIENE E
MEDICINA TROPICAL
DESDE 1902

CU Bioethics, Laboratory Safety and Quality Assurance

CU characterization:

CU name:

Bioethics, Laboratory Safety and Quality Assurance

Scientific area acronym:

XXXX

Duration:

Semiannual

Working hours:

56 hours

Contact hours:

16 hours

ECTS:

2

Observations:

Observations

Teacher in charge and respective teaching load in the CU:

Professor Maria de Jesus Chasqueira – 3.5 hours

Other teachers and respective teaching load in the CU:

Professor Catarina Martins – 8 hours

Professor Teresa Costa – 1.5 hours

Professor Maria João Almeida Santos – 4 hours

Intended learning outcomes (knowledge, skills and competences to be developed by the students):

- To understand the principles of bioethics;
- Improve research skills and ethical use of information
- To know the main rules of laboratory safety;
- To know the principles of Quality Assurance in microbiology and its main practical applications.

Syllabus:



Bioethics: Introduction. Law and ethics. Ethics and research.

Tools and strategies of bibliographic research. Ethical use of information to avoid plagiarism

Laboratory safety: Biosafety in Microbiological laboratory: biohazard Degree; Laboratory Biosafety levels, primary barriers: biological safety cabinets, personal protective equipment. Secondary barriers: infrastructure; Assessment and risk management. Good Laboratory Practices; Decontamination procedures: disinfection and sterilization.

Quality assurance in Microbiology Laboratories: Certification and Accreditation Standards for testing laboratories: NP EN ISO 9001, NP EN ISO/IEC 17025 and EN ISO 15189. Technical requirements on Microbiology Laboratory: Personnel; Installations and environmental conditions; Equipment, reagents and consumables; Pre examination, examination and post-examination processes; Quality assurance. Reporting and releasing results, and Laboratory Information Management.

Evidence of the syllabus coherence with the CU intended learning outcomes:

The contents are consistent with the learning objectives.

Teaching methodologies (including assessment):

Theoretical classes will be taught by the teachers, depending on their respective specializations. The form of lecture, in which they will address issues considered essential by providing data to guide students to an individual study.

Student assessment – Written examination – multiple choice test of 20 questions (duration 30 minutes; face to face).

Evidence of the teaching methodologies coherence with the CU intended learning outcomes:

The lectures are transmitted to achieve its goals, especially because it encouraged active participation by the students. The written test will be made with questions that seek to assess the understanding and knowledge of the taught subjects.

References for consultation / mandatory existence:

- Stapleton G, Schröder BäckP, Laaser U, Meershoek A, Popa D. Global health ethics: an introduction to prominent theories and relevant topics. Glob Health Action. 2014 13;7:23569- Njoroge SW, Nichols JH. Risk management in the clinical laboratory. Ann Lab Med. 2014 ;34(4):2748.
- Wilson ML. Assuring the quality of clinical microbiology test results. Clin Infect Dis. 2008;47(8):107782.
ISO 15189. Medical laboratories - Requirements for quality and competence. Geneva, Switzerland: International Organization for Standardization; 2017.
- ISO/IEC 17025. General requirements for the competence of testing and calibration laboratories. Geneva, Switzerland: International Organization for Standardization; 2012.
- OGC001 - Guia para a aplicação da NP EN ISO/IEC 17025 – IPAC, 2018.
- OGC004 - Guia para a aplicação da NP EN ISO 15189 – IPAC, 2017.