

Antibiotic Resistance and Marine Conservation: A One Health Approach

Syllabus

Aims

At the end of the module, the participants will be able to:

- Identify the main factors that accelerated the spread of antibiotic resistance.
- recognize the impact of antibiotic resistance on human, animal and environmental health by exploring real life example.
- Identify antibiotic stewardship programmes and the challenges in implementing them.
- Identify the vital role marine ecosystems play on earth in the context of animals, environment and human health and the need for marine conservation programmes.
- Explore the impact of antibiotic resistance on marine life.
- Explore the role of the One Health approach in improving the use of antibiotics to minimise its effect on marine life by developing a research protocol for One Health problem.

Format

- 6 Synchronous Sessions
- 4 Units of asynchronous interactive eLearning
- Scope: 90 working hours in 10 weeks

Credits:

3 ECTS

Content:

Topics include:

- Holistic Thinking in Health
- History and discussion of antibiotics as a One Health topic
- Impact of antibiotic resistance on marine ecosystems
- Examples of One Health challenges in the field of antibiotic resistance and marine conservation
- Examples of research methods (Quantitative & Qualitative) for writing One Health research proposals
- Self-Competence and the multi- and interdisciplinary collaboration of disciplines

Assessment:

The final assessment is composed of 4 parts:

1. **Assignment 1:** Poster presentation: reflection on the use of antibiotics (30%)
2. **Quiz 1:** A One Health Lens into Antibiotic Pollution (10%)
3. **Assignment 2:** Written assignment on mitigating strategies through One Health that can eliminate antibiotic resistance in marine ecosystems (10%)
4. **Assignment 3:** Study protocol for an interdisciplinary one-health research project focusing on antibiotic resistance: written text 30%- & 10-minute presentation of interdisciplinary teamwork 20%