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| N° ECUE | **XA4S721** |
| Title | **Microbiology of biological water treatment, waterborne pathogens** |
| ECTS |  | Lecture(h)CM : **25.5 h** |  | Tutorials (h)TD |  | Pratical works (h) TP : **6 h** |  | Project (h) |  |
| Description:**Courses:** - Microbiological processes of aerobic and anaerobic biological treatment plants: activated sludge treatment, biofilms, waste stabilization ponds, anaerobic treatments: communities structure and functioning of microorganisms populations (bacteria, protozoa, microalgae, microscopic metazoans). - Health microbiology: microbiological methods (numeration and detection of microorganisms, AFNOR standards), molecular and immunological methods.**Practical courses:** Taxonomy of the microfauna associated with activated sludges and biofilms: microscopic observations and functioning diagnosis. **Project:** Bibliographical study and analysis of scientific and technical documents in English: oral presentation. |
| Key Words | Microorganisms, biological water treatments, waterborne pathogens, water treatment plant diagnosis. |
| Type of Evaluation | Final test : theorical courses and document analysis (6/9); Bibliographic project : oral presentation (1/9); Practical courses "Diagnosis of treatment plants" (2/9). (2 ECTS) |