

# **Programme des cours de renforcement des formations doctorale de la Faculté de Technologie**

## **Common courses**

### **1. Information and telecommunication technology (ICT) and educational science**

I. ACD - Administration of a Distance Learning Course – functionalities of the Moodle platform – (Workshops, Introduction & Overview of functionalities, Communication tools, Content creation, Tests & Evaluations).

II. PEV- Virtual Teaching Platforms,

III. PIN - Pedagogy and the Internet (nature of pedagogy in general, approach to some theories of learning, pedagogical approaches, teaching techniques, pedagogical objectives and evaluation).

IV. TUT - Tutoring (roles, function, joint learning, design of tasks for groups of students, group composition, understanding of complexity, acts and actions in an activity, media of communication, evaluation of groups and individuals, learning from interactions )

V. ERW - Exploitation of WEB resources (knowing the sources and tools – sources of information, research techniques, online research –, carrying out research – guided research, accompanied research –, use of information – citing resources, a bibliography).

### **2. Scientific and educational research methodologies**

I. General introduction

II. Questions of definitions: notion of scientific research; the methodological stages of the research; the construction of the research object; the starting question; how to construct a problematic; elements of the methodology; how to construct research hypotheses; construction of analysis models and verification of hypotheses; presentation of research work.

III. Questions relating to the form and presentation of the research work: plan, bibliographical references, appendices.

IV. Organization and preparation of educational work

V. Pedagogical methodology