SCHOOL OF ADVANCED STUDIES- 2011 PhD Research topics	
Area of Studies	**LIFE SCIENCES AND PUBLIC HEALTH**

Curriculum:	**ENVIRONMENTAL SCIENCES AND PUBLIC HEALTH**
Learning objective	The aim of this curriculum is to merge intellectual and technical expertise and to offer disciplinary and interdisciplinary training programmes on the different research topics of environmental sciences and on their impact on public health in order to prepare the candidates for future challenges, either in academic career or in the broader work.
	Research topic n.1 **Studies on plant biodiversity and management of protected areas and natural habitats**.
	Research topic n.2 **Characterization of bioindicators in environmental monitoring by classical and biotechnological approaches**
	Research topic n.3 **Molecular and biological characterization of enzymes and other proteins from organisms living in extreme environments for industrial application**
	Research topic n.4 **Studies on genomics and functional genomics in eukaryotic microorganisms (in particular protozoa)**
	Research topic n.5 **Valorisation of typical food products through new systems of quality analysis and quality warranty.**
	Research topic n.6 **Development of new molecular diagnostic procedures for genetic and metabolic diseases**
	Research topic n.7 **Composting Biotechnology: soil food web, organic waste and environmental management**
	Research topic n.8 **Molecular approach to the study of paleopathology**. The research is addressed to the identification after DNA amplification of residues of pathogenic and nonpathogenic organisms in ancient human remains and archeological sites. This analysis shows the diffusion in the past centuries of pathogenic organisms and parasites in the environment and contribute to the study of their molecular evolution
	Research topic n.9 **Research experiences on e-Health and Telemedicine (please see the specific programme included in the PhD course on Environmental sciences and public health at the link : http://www.unicam.it/laureati/dottorato/phd_course**

	s.asp)
	Research topic n.10 **Development of new approaches to teaching and learning Natural and Environmental Sciences** Experimental tools are the following: problem-based learning, inquiry-based science education and integration of experimental sciences. Attention is addressed to - health education and environmental sustainability -evaluation of the impact of education system reforms on student learning