

LIST OF COURSES FOR ACADEMIC YEAR 2026/27**MD- BIOLOGY OF EXTREME ENVIRONMENT LM-6****I E II YEAR (REG. N. D53) FOLLOW REGULATIONS A.A. 2025/2026****School of Polytechnic and Basic Sciences****Department of Biology****Monte Sant'Angelo**

Year I				
Curriculum in Biological Resources				
Semester I				
Title Courses	SSD	Credits	PROFF.	Mandatory/ optional
INTRODUCTION TO EARTH SYSTEM SCIENCES	GEOS-02/B	6	Mariano Parente (mutua da ASB)	Mandatory
MYCROBIOLOGY OF EXTREME ENVIRONMENTS	BIOS-15/A	8	Donato Giovannelli	Mandatory
BIODIVERSITY AND PRIMARY PRODUCTIVITY IN EXTREME ENVIRONMENTS	BIOS-01/A	6	Antonino Pollio	Mandatory
CHEMISTRY OF BIOPOLYMERS AND METABOLITES FROM EXTREME ENVIRONMENTS	CHEM- 05/A	6	Maria Michela Corsaro	Mandatory

Semester II				
Title Courses	SSD	Credits	PROFF.	Mandatory/ optional
BIOCHEMISTRY AND MOLECULAR ADAPTATION TO EXTREME ENVIRONMENTS	BIOS-07/A	8	Marco Moracci (mutua da ASB)	Mandatory
ECOLOGY OF EXTREME ENVIRONMENTS	BIOS-05/A	6		Mandatory
APPLIED MICROBIOLOGY OF EXTREMOPHILES	BIOS-15/A	6	Angelina Cordone	Mandatory
ACTIVITIES AT STUDENT'S CHOICE		6		Optional

Year II				
Curriculum in Biological Resources				
Semester I				
Title Courses	SSD	Credits	PROFF.	Mandatory/ optional
EXTREME ENVIRONMENTS AND PUBLIC HEALTH	MEDS- 24/B	6	Giovanni Libralato	Mandatory
DISCOVERY AND APPLICATIONS OF EXTREMOPHILIC ENZYMES	BIOS-07/A	6	Andrea Strazzulli	Mandatory
OMICS DATA ANALYSIS	BIOS-14/A	6	Giovanni Scala	Mandatory
INTERNSHIP/ACQUISITION OF ITALIAN LANGUAGE* (FOREIGN STUDENTS)		6		Mandatory
ACTIVITIES AT STUDENT'S CHOICE		6		Optional

Year I Curriculum in Astrobiology Semester I				
Title Courses	SSD	Credits	PROFF.	Mandatory/ optional
INTRODUCTION TO EARTH SYSTEM SCIENCES	GEOS-02/B	6	Mariano Parente	Mandatory
MYCROBIOLOGY OF EXTREME ENVIRONMENTS	BIOS-15/A	8	Donato Giovannelli (mutua da BR)	Mandatory
EXTREME ENVIRONMENTS: HEARTH AND SPACE	BIOS-05/A	6	Carmen Arena	Mandatory
ASTROCHEMISTRY AND PREBIOTIC PROCESS	CHEM-05/A	6	Paola Manini	Mandatory

Semester II				
Title Courses	SSD	Credits	PROFF.	Mandatory/ optional
ASTROBOTANY	BIOS-01/A	6	Valeria Spagnuolo	Mandatory
BIOCHEMISTRY AND MOLECULAR ADAPTATION TO EXTREME ENVIRONMENTS	BIOS-07/A	8	Marco Moracci	Mandatory
PHYSIOLOGY AND NUTRITION IN SPACE CONDITIONS	BIOS-06/A	6	Arianna Mazzoli	Mandatory
ACTIVITIES AT STUDENT'S CHOICE		6		Optional

Year II Curriculum in Astrobiology Semester I				
Title Courses	SSD	Credits	PROFF.	Mandatory/ optional
MICROBIAL METABOLISM AND PLANETARY HABITABILITY	BIOS-15/A	6	Donato Giovannelli	Mandatory
EMERGENCE OF LIFE AND EXOBIOLOGY	BIOS-07/A	6	Patrizia Contursi	Mandatory
OMICS DATA ANALYSIS	BIOS-14/A	6	Giovanni Scala	Mandatory
INTERNSHIP/ACQUISITION OF ITALIAN LANGUAGE* (FOREIGN STUDENTS)		6		Mandatory
ACTIVITIES AT STUDENT'S CHOICE		6		Optional

* for foreign students: 3 CFU for Italian language acquisition and 3 CFU for knowledge useful for job placement

OPTIONAL COURSES				
Title Courses	SSD	Credits	PROFF.	SEM
ASTROPHYSICS OF LIFE	PHYS-05/A	6	Giovanni Covone	II
ADVANCED METHODOLOGIES FOR BIOSIGNATURE DETECTION AND ANALYSIS IN SPACE ENVIRONMENT	CHEM-05/A	6	Maria Laura Alfieri	II