



INDUSTRIAL BIOTECHNOLOGY

Study Program location: Bergamo

Duration: 2000 Hours

Goal of the program :

The Industrial Biotechnology program aims to train a competent specialist in the field of cosmetics, nutraceuticals and ecology. The program guarantees a high-quality theoretical, experimental and applicative training in the various biotechnological sectors, providing relevant knowledge of the tools and deep knowledge of experimental methods.

Career opportunities (Possible Departments):

- Laboratory
- Research and Development
- Quality control
- Formulation Development
- Commercial
- Microbiological laboratory
- Technical office



SUPERIOR SPECIALIST FOR INDUSTRIAL BIOTECHNOLOGICAL PRODUCTION			
REALIGNMENT	Name of the discipline	Hours	
	GENERAL CHEMISTRY STOICHIOMETRIC FUNDAMENTALS	32	
	ORGANIC CHEMISTRY	32	
	ETHICS, SOFT SKILLS OF BUSINESS COMMUNICATION	12	
	ENGLISH LANGUAGE	40	
	FUNDAMENTALS OF COMPUTER SCIENCE	48	
	Total realignment hours	164	
MODULES	Name of the discipline	Hours	
	<u>ECONOMICS AND BUSINESS ORGANIZATION</u>		
	MARKETING	32	
	BUSINESS PLANNING	16	
	BUSINESS ORGANIZATION, PRODUCTION MANAGEMENT	40	
	SAFETY AND ENVIRONMENTAL LEGISLATION	16	
	<u>BASIC CHEMISTRY</u>		
	MATHEMATICAL METHODS FOR CHEMISTRY	50	
	GENERAL CHEMISTRY	40	
	ADVANCED GENERAL CHEMISTRY	30	
	ORGANIC CHEMISTRY	40	
	ADVANCED ORGANIC CHEMISTRY	30	
	INSTRUMENTAL CHEMICAL ANALYSIS	40	
	PHYSICAL CHEMISTRY OF COLLOIDS AND INTERPHASES	48	
	TECHNICAL AND MEDICAL GASES	30	
	VALORIZING SECONDARY RAW MATERIALS	20	
	<u>BIOLOGY</u>		
	GENERAL AND APPLIED MICROBIOLOGY	48	
	PLANT SANITIZATION TECHNIQUES	30	
	MOLECULAR BIOLOGY AND BIOMOLECULAR METHODOLOGIES	58	
	BIOMOLECULE EXTRACTION TECHNIQUES	30	
	BIOLOGY OF ANIMAL AND PLANT CELLS	40	
	GENETICS OF MICROORGANISMS	32	
	INDUSTRIAL BIOCHEMISTRY AND ENZIMOLOGY	48	
	BIOTECHNOLOGY APPLIED TO THE PRODUCTION OF BIOMOLECULES	30	
	FORMULATIONS WITH ENZYMES	18	
	BIOINFORMATICS	48	
	ECOLOGY	56	
	<u>COSMETICS</u>		
	CHEMISTRY OF COSMETIC INGREDIENTS	20	
	COSMETIC FORMULATIONS	40	
	DECORATIVE COSMETICS	30	
	EVALUATION OF THE FUNCTIONALITY OF COSMETIC PRODUCTS	24	
	COSMETIC PRODUCT REGULATORY	24	
	PROCESSING TECHNIQUES FOR POWDERS, PASTES AND SLURRIES	20	
	<u>NUTRACEUTICS</u>		
	CHEMISTRY OF FOOD AND NUTRACEUTICS	20	
	FOOD PRODUCTS AND SUPPLEMENTS	30	
	RHEOLOGICAL PROPERTIES OF FOOD PREPARATIONS	24	
	TOXICOLOGY	32	
	PLANTS AND MACHINES FOR THE CHEMICAL, PHARMACEUTICAL, COSMETIC AND FOOD INDUSTRIES	32	
	CERTIFICATION OF PRODUCTS AND THEIR TRACEABILITY	20	
		Total	1.186
	TRAINING		814
		Total with training	2.000