



ACADEMIC CATALOG

AGROINDUSTRIAL ENGINEERING

DEGREE PROFILE

The Agroindustrial Engineer from Universidad de Las Américas is a competent, entrepreneurial professional with a global international vision, who has a solid background to manage agro-productive chains based on technical and economic analysis, and focused on the pursuit of excellence, innovation and social commitment.

The Agroindustrial Engineer is expected to be able to create, improve and enrich their knowledge through research; so as to perform their work with professional ethics, to be critical, creative, enterprising, innovative and capable of solving complex problems within the agro-productive field.

LEARNING OUTCOMES

- 1.- Identify, formulate, and solve complex engineering problems by applying principles of engineering, science, and mathematics.
- 2.- Apply engineering design to produce solutions that meet specified needs with consideration of public health, safety, and welfare, as well as global, cultural, social, environmental, and economic factors.
- 3.- Communicate effectively with a range of audiences within the field.
- 4.- Recognize ethical and professional responsibilities in engineering situations and make informed judgments, which must consider the impact of engineering solutions in global, economic, environmental, and societal contexts.
- 5.- Function effectively on a team whose members together provide leadership, create a collaborative and inclusive environment, establish goals, plan tasks, and meet objectives.
- 6.- Develop and conduct appropriate experimentation, analyze, and interpret data, and use engineering judgment to draw conclusions.
- 7.- Acquire and apply new knowledge as needed, using appropriate learning strategies.

FIRST SEMESTER

1.- MATZ0339 INTRODUCTION TO CALCULUS



2.- IAGI1103 GENERAL BIOLOGY

3.- IAGI1108 GENERAL CHEMISTRY

4.- IAGI1301 INTRODUCTION TO AGROINDUSTRIAL ENGINEERING

5.- FGLZ0192 LANGUAGE AND DIGITAL COMMUNICATION

SECOND SEMESTER

1.- MATZ0341 CALCULUS I

Prerequisites :

MATZ0339 INTRODUCTION TO CALCULUS

2.- FISZ0121 GENERAL PHYSICS

3.- IAGI2108 ORGANIC CHEMISTRY

Prerequisites :

IAGI1108 GENERAL CHEMISTRY

4.- IAGI2215 BOTANY AND PLANT PHYSIOLOGY

Prerequisites :

IAGI1103 GENERAL BIOLOGY

5.- FGLZ0180 RESEARCH AND ACADEMIC TEXTS

Prerequisites :

FGLZ0192 LANGUAGE AND DIGITAL COMMUNICATION

THIRD SEMESTER

1.- MATZ0342 CALCULUS II

Prerequisites :

MATZ0341 CALCULUS I

2.- IAGI3112 GENERAL MICROBIOLOGY

Prerequisites :

IAGI2215 BOTANY AND PLANT PHYSIOLOGY

3.- IAGI2121 BIOCHEMISTRY

Prerequisites :

IAGI2108 ORGANIC CHEMISTRY



4.- IAGI3422 THERMODYNAMICS

Prerequisites :

FISZ0121 GENERAL PHYSICS

5.- FGHZ0932 CITIZENSHIP, CULTURE AND HISTORY

FOURTH SEMESTER

1.- IAGI3410 MASS BALANCE

Prerequisites :

IAGI3422 THERMODYNAMICS

2.- IAGI3424 TRANSPORTATION PHENOMENA

Prerequisites :

IAGI3422 THERMODYNAMICS

3.- IAGI3218 FOOD'S MICROBIOLOGY

Prerequisites :

IAGI3112 GENERAL MICROBIOLOGY

4.- IAGI2324 FOOD CHEMISTRY

Prerequisites :

IAGI2121 BIOCHEMISTRY

5.- FGHZ0943 ART, HUMAN EXPRESSION AND COMMUNITY

FIFTH SEMESTER

1.- IAGI3428 UNIT OPERATIONS

Prerequisites :

IAGI3410 MASS BALANCE

IAGI3424 TRANSPORTATION PHENOMENA

2.- IAGI2227 FOOD SAFETY

Prerequisites :

IAGI3218 FOOD'S MICROBIOLOGY

3.- IAGI3329 FOOD AND ORGANIC SUBSTANCES LABORATORY

Prerequisites :

IAGI2324 FOOD CHEMISTRY



4.- IAGI2229 VEGETABLE PRODUCTION

Prerequisites :

IAGI2215 BOTANY AND PLANT PHYSIOLOGY
IAGI2324 FOOD CHEMISTRY

5.- IAGI2228 ANIMAL PRODUCTION

Prerequisites :

IAGI1103 GENERAL BIOLOGY
IAGI2324 FOOD CHEMISTRY

SIXTH SEMESTER

1.- IAGI3234 STATISTICS FOR ENGINEERS

Prerequisites :

MATZ0342 CALCULUS II

2.- IAGI2433 AGROINDUSTRIAL MACHINERY AND CONSTRUCTION

Prerequisites :

IAGI3428 UNIT OPERATIONS

3.- IAGI2230 POST HARVEST AND CONSERVATION

Prerequisites :

IAGI2229 VEGETABLE PRODUCTION

4.- IAGI3531 PROCESS MANAGEMENT

Prerequisites :

IAGI3428 UNIT OPERATIONS

5.- IAGI3557 DESIGN AND DEVELOPMENT OF AGRO-INDUSTRIAL PRODUCTS

6.- IAGI2336 NON-FOOD PRODUCT TECHNOLOGY

Prerequisites :

IAGI3329 FOOD AND ORGANIC SUBSTANCES LABORATORY

SEVENTH SEMESTER

1.- IAGI2541 AGROINDUSTRIAL COST ACCOUNTING

Prerequisites :

IAGI3234 STATISTICS FOR ENGINEERS



2.- IAGI2339 DAIRY INDUSTRY

Prerequisites :

IAGI3329 FOOD AND ORGANIC SUBSTANCES LABORATORY

3.- IAGI2347 FRUIT AND VEGETABLE INDUSTRY

Prerequisites :

IAGI2229 VEGETABLE PRODUCTION

IAGI2230 POST HARVEST AND CONSERVATION

4.- IAGI3539 OPERATIONAL RESEARCH AND PROCESS SIMULATION

Prerequisites :

IAGI3531 PROCESS MANAGEMENT

5.- IAGI3248 RESEARCH MODELS AND EXPERIMENT DESIGN

Prerequisites :

IAGI3234 STATISTICS FOR ENGINEERS

EIGHTH SEMESTER

1.- IAGI2349 CEREALS AND OILS INDUSTRY

Prerequisites :

IAGI2347 FRUIT AND VEGETABLE INDUSTRY

2.- IAGI2345 MEAT INDUSTRY

Prerequisites :

IAGI2228 ANIMAL PRODUCTION

3.- IAGI2544 OPERATIONS MANAGEMENT I

Prerequisites :

IAGI3539 OPERATIONAL RESEARCH AND PROCESS SIMULATION

4.- IAGI3545 QUALITY MANAGEMENT SYSTEMS

Prerequisites :

IAGI3531 PROCESS MANAGEMENT

5.- IAGI3552 AGRIBUSINESS

Prerequisites :

IAGI2541 AGROINDUSTRIAL COST ACCOUNTING

6.- TITA4441 AGRO-INDUSTRIAL PROJECT MANAGEMENT



Prerequisites :

IAGI3539 OPERATIONAL RESEARCH AND PROCESS SIMULATION

NINTH SEMESTER

1.- IAGI3556 PRE PROFESSIONAL PRACTICES

2.- IAGI2550 OPERATIONS MANAGEMENT II

Prerequisites :

IAGI2544 OPERATIONS MANAGEMENT I

3.- IAGI2249 FOOD AND NUTRITION SECURITY

Prerequisites :

IAGI3329 FOOD AND ORGANIC SUBSTANCES LABORATORY

4.- IAGI3452 PLANT DESIGN AND INDUSTRIAL SAFETY

Prerequisites :

IAGI2433 AGROINDUSTRIAL MACHINERY AND CONSTRUCTION

5.- TITA4442 FOOD BIOENGINEERING PROJECT

Prerequisites :

TITA4441 AGRO-INDUSTRIAL PROJECT MANAGEMENT