

### **General Objective**

To train professionals at doctoral level in the field of Industrial Engineering, with research capacity, intellectual and scientific rigor, allowing them to be intellectually autonomous and internationally competitive in the appropriation of original scientific contributions.

### **Occupational profile**

Optimization and improvement of products and processes based on experimental techniques, characterization and analysis of phenomena using fundamental principles. management and formulation of research and technological development projects, management of R&D&I teams in engineering firms

### **Duration**

8 semesters, 120 credits.

### **Title offered**

Doctor of Philosophy in Industrial Engineering.

### **Modality of study**

On Campus (classes during the week, usually programmed in the afternoon hours)

# PH.D. IN INDUSTRIAL ENGINEERING

8 semesters · SNIES Code: 54133  
Res. 366 of 2016 (7 years)  
Metropolitan area of Barranquilla



[www.uninorte.edu.co](http://www.uninorte.edu.co)

# CURRICULUM

## Core Courses

\*Approve all

Credits

- Multivariate Optimization.....4
- Integrated Business Management.....4
- Advanced Computing.....4
- Operations Management.....4

## Mathematics Concentration

\*Approve 8 credits of the offer

## Elective Courses

\*Approve 20 credits of the offer

## Research Training Courses

\*Approve 8 credits

## Qualifying Examination

\*Passing the exam

## International Internship

\*Approve 8 credits

\*Minimum duration of 3 months

\*Publish at least one international paper

## Doctoral Thesis

\*Approve 58 credits

## Doctoral Thesis Defense

\*Approve 2 credits

\*Students may choose their courses according to the academic offer of each semester. The maximum number of credits per semester is 14. Possibility of courses offered in English.

## Enrollment Steps

Learn the steps and sign up by going to:  
[www.uninorte.edu.co/nuevoingreso](http://www.uninorte.edu.co/nuevoingreso)

## Financing

We have multiple alternatives to finance the payment of tuition in the short, medium and long term. Learn more at:  
[www.uninorte.edu.co/web/apoyo-financiero/posgrados](http://www.uninorte.edu.co/web/apoyo-financiero/posgrados)

More information  
here



## More information

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