

ENTRY REQUIREMENTS

WASSCE/NECO:

Minimum C6 in 6 subjects including 3 core subjects (Maths and English mandatory) and 3 elective subjects. (Elective /Add/Further Maths and Physics mandatory)

SSSCE:

Minimum D or a pass in 6 subjects including 3 core subjects (Maths and English mandatory) and 3 elective subjects. (Elective /Add/Further Maths and Physics mandatory)

IGCSE O-LEVEL & A-LEVEL:

Minimum of 5 credit passes in the IGCSE/O-Levels (including Maths and English) and 3 passes in the A-Levels. (Elective /Add/Further Maths and Physics mandatory)

ENGLISH IB:

Minimum of 5 credit passes in the IGCSE/O-Levels (Maths and English mandatory) and a minimum score of 4 points in 3 Higher Level (HL) subjects. (Elective /Add/Further Maths and Physics mandatory)

FRENCH IB:

Minimum of 50% overall average pass. (subject to approval NAB) (Maths, English and Physics mandatory)

AMERICAN HIGH SCHOOL:

Minimum GPA of 3.0 (Maths, English and Physics mandatory)



ACADEMIC CITY
UNIVERSITY COLLEGE



ENGINEERING

BSc. Industrial & Systems Engineering

The people-oriented discipline covers broadly the meticulous integration of people, materials, information, equipment, and energy to innovatively design, implement and improve systems for higher productivity, quality and safety.

HOW TO APPLY

Complete the online application form:
www.acity.edu.gh/applyonline
OR

Email: admissions@acity.edu.gh

#Ask^City

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Redefining University Education

SEMESTER 1

Course Name

Communication Skills
French Language
Fundamentals of Innovation and Entrepreneurship (FIE) Seminar I

Introduction to Engineering
Introduction to Programming with Python
Physical Sciences
Pre-Calculus (with MATLAB)
Technology and Society

SEMESTER 2

Course Name

Analytic Geometry and Calculus I (with MATLAB)
Engineering Mechanics
Fundamentals of Innovation and Entrepreneurship (FIE) Seminar II

Introduction to Industrial and Systems Engineering
Introduction to Multidisciplinary Design
Logic and Critical Thinking

Sensors, Measurements and Instrumentation

Text and Meaning

SEMESTER 5

Course Name

Design of Experiments
Deterministic Operations Research - Optimisation
Differential Equations (with MATLAB)
Production Planning and Inventory Control
Leadership Seminar II
Manufacturing Processes II
Mechanics of Materials

SEMESTER 6

Course Name

Discrete-Event Computer Simulation
Human Factors and Ergonomics
Industrial Ergonomics and Work Measurements
Industry Internship
Probabilistic Operations Research - Stochastic Models
Project Management, Engineering Economics and Risk Analysis
Statistical Quality Control

SEMESTER 3

Course Name

Analytic Geometry and Calculus II (with MATLAB)
Computer-Aided Design and Manufacturing (CAD and CAM)
Computing in Industrial and Systems Engineering
Fundamentals of Innovation and Entrepreneurship (FIE) I
Introduction to Material Science and Engineering
Leadership Seminar I
Electricity and Optics

SEMESTER 4

Course Name

African Studies
Applied Linear Algebra (with MATLAB)
Data Management for Industrial and Systems Engineers (ISEs)
Fundamentals of Innovation and Entrepreneurship II
Manufacturing Processes I
Probability, Statistics and Reliability (with MATLAB)

SEMESTER 7

Course Name

Industrial Automation and Robotics
Lean Manufacturing
Logistics Engineering
Project Phase I
Technical Elective I
Technical Elective II

SEMESTER 8

Course Name

Environmental Science and Engineering
Occupational Safety and Hazard Control
Professional Ethics and Values
Project Phase II
Technical Elective III
Technical Elective IV

ELECTIVES

Advanced Manufacturing

Micro and Nano Manufacturing
Welding Engineering
Digital Manufacturing
Laser Processing

Automated Manufacturing and Integration

Computer Control of Manufacturing Processes
Industrial Robotics and Flexible Assembly
Industrial Control Systems
Optimization of Large Systems

Computer-Aided Design and Manufacturing

Advanced CAD and CAM
Computer Aided Design and Prototyping
Advanced Manufacturing Processes and Practices
Quality Control
Design for Manufacturability

Manufacturing Processes, Systems and Planning

Advanced Manufacturing Processes
Integrated Production Systems
Advanced Manufacturing Operations
Artificial Intelligence and Expert Systems